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- Ser Ile Val Gly Arg Pro Arg His Gln Gly Val Met Val Gly Met Gly 35 40 45
- Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile 50 55 60
- Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp 70 75 80
- Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val 85 90 95
- Ala Pro Glu Glu His Pro Val Leu Leu Thr Glu Ala Pro Leu Asn Pro 100 105 110
- Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn 115 120 125
- Thr Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala 130 135 140
- Ser Gly Arg Thr Thr Gly Ile Val Met Asp Ser Gly Asp Gly Val Thr 145 150 155 160
- His Thr Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Leu 165 170 175
- Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Met Lys Ile 180 185 190
- Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Ala Glu Arg Glu Ile 195 200 205
- Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu 210 215 220
- Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr 225 230 235 240
- Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg 245 250 255

Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe Leu Gly Met Glu Ser Cys 260 265 270

- Gly Ile His Glu Thr Thr Phe Asn Ser Ile Met Lys Cys Asp Val Asp 275 280 285
- Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly Thr Thr 290 295 300
- Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Lys Glu Ile Thr Ala Leu 305 310 315 320
- Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Arg Lys 325 330 335
- Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe 340 345 350
- Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr Asp Glu Ser Gly Pro Ser 355 360 365
- Ile Val His Arg Lys Cys Phe 370 375
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- Ser Pro Ser Arg Glu Cys Lys Glu Leu Asp Gly Leu Trp Ser Phe Arg 35 40 45
- Ala Asp Phe Ser Asp Asn Arg Arg Gly Phe Glu Glu Gln Trp Tyr 50 55 60
- Arg Arg Pro Leu Trp Glu Ser Gly Pro Thr Val Asp Met Pro Val Pro 65 70 75 80
- Ser Ser Phe Asn Asp Ile Ser Gln Asp Trp Arg Leu Arg His Phe Val 85 90 95

678

Gly Trp Val Trp Tyr Glu Arg Glu Val Ile Leu Pro Glu Arg Trp Thr Gln Asp Leu Arg Thr Arg Val Val Leu Arg Ile Gly Ser Ala His Ser Tyr Ala Ile Val Trp Val Asn Gly Val Asp Thr Leu Glu His Glu Gly Gly Tyr Leu Pro Phe Glu Ala Asp Ile Ser Asn Leu Val Gln Val Gly Pro Leu Pro Ser Arg Leu Arg Ile Thr Ile Ala Ile Asn Asn Thr Leu Thr Pro Thr Thr Leu Pro Pro Gly Thr Ile Gln Tyr Leu Thr Asp Thr Ser Lys Tyr Pro Lys Gly Tyr Phe Val Gln Asn Thr Tyr Phe Asp Phe Phe Asn Tyr Ala Gly Leu Gln Arg Ser Val Leu Leu Tyr Thr Thr Pro Thr Thr Tyr Ile Asp Asp Ile Thr Val Thr Thr Ser Val Glu Gln Asp Ser Gly Leu Val Asn Tyr Gln Ile Ser Val Lys Gly Ser Asn Leu Phe Lys Leu Glu Val Arg Leu Leu Asp Ala Glu Asn Lys Val Val Ala Asn Gly Thr Gly Thr Gln Gly Gln Leu Lys Val Pro Gly Val Ser Leu Trp Trp Pro Tyr Leu Met His Glu Arg Pro Ala Tyr Leu Tyr Ser Leu Glu Val Gln Leu Thr Ala Gln Thr Ser Leu Gly Pro Val Ser Asp Phe Tyr Thr Leu Pro Val Gly Ile Arg Thr Val Ala Val Thr Lys Ser Gln Phe

Leu Ile Asn Gly Lys Pro Phe Tyr Phe His Gly Val Asn Lys His Glu 340 345 350

- Asp Ala Asp Ile Arg Gly Lys Gly Phe Asp Trp Pro Leu Leu Val Lys 355 360 365
- Asp Phe Asn Leu Leu Arg Trp Leu Gly Ala Asn Ala Phe Arg Thr Ser 370 375 380
- His Tyr Pro Tyr Ala Glu Glu Val Met Gln Met Cys Asp Arg Tyr Gly 385 390 395 400
- Ile Val Val Ile Asp Glu Cys Pro Gly Val Gly Leu Ala Leu Pro Gln 405 410 415
- Phe Phe Asn Asn Val Ser Leu His His His Met Gln Val Met Glu Glu 420 425 430
- Val Val Arg Arg Asp Lys Asn His Pro Ala Val Val Met Trp Ser Val
 435 440 445
- Ala Asn Glu Pro Ala Ser His Leu Glu Ser Ala Gly Tyr Tyr Leu Lys 450 455 460
- Met Val Ile Ala His Thr Lys Ser Leu Asp Pro Ser Arg Pro Val Thr 465 470 475 480
- Phe Val Ser Asn Ser Asn Tyr Ala Ala Asp Lys Gly Ala Pro Tyr Val 485 490 495
- Asp Val Ile Cys Leu Asn Ser Tyr Tyr Ser Trp Tyr His Asp Tyr Gly 500 505 510
- His Leu Glu Leu Ile Gln Leu Gln Leu Ala Thr Gln Phe Glu Asn Trp 515 520 525
- Tyr Lys Lys Tyr Gln Lys Pro Ile Ile Gln Ser Glu Tyr Gly Ala Glu 530 535 540
- Thr Ile Ala Gly Phe His Gln Asp Pro Pro Leu Met Phe Thr Glu Glu 545 550 555 560
- Tyr Gln Lys Ser Leu Leu Glu Gln Tyr His Leu Gly Leu Asp Gln Lys 565 570 575

Arg Arg Lys Tyr Val Val Gly Glu Leu Ile Trp Asn Phe Ala Asp Phe 580 585 590

Met Thr Glu Gln Ser Pro Thr Arg Val Leu Gly Asn Lys Lys Gly Ile 595 600 605

Phe Thr Arg Gln Arg Gln Pro Lys Ser Ala Ala Phe Leu Leu Arg Glu 610 620

Arg Tyr Trp Lys Ile Ala Asn Glu Thr Arg Tyr Pro His Ser Val Ala 625 630 635 640

Lys Ser Gln Cys Leu Glu Asn Ser Pro Phe Thr 645 650

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Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg 20 25 30

His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser 35 40 45

Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu 50 55 60

Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp 65 70 75 80

Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp 85 90 95

Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile 100 105 110

Val Lys Trp Asp Arg Asp Met 115

<210> 2403 <211> 228

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Glu Gln Asp Ile Arg Glu Glu Ile Arg Lys Val Val Gln Ser Leu Glu 20 25 30

Gln Thr Ala Arg Glu Ile Leu Thr Leu Leu Gln Gly Val His Gln Gly 35 40 45

Ala Gly Phe Gln Asp Ile Pro Lys Arg Cys Leu Lys Ala Arg Glu His 50 55 60

Phe Gly Thr Val Lys Thr His Leu Thr Ser Leu Lys Thr Lys Phe Pro 65 70 75 80

Ala Glu Gln Tyr Tyr Arg Phe His Glu His Trp Arg Phe Val Leu Gln 85 90 95

Arg Leu Val Phe Leu Ala Ala Phe Val Val Tyr Leu Glu Thr Glu Thr 100 105 110

Leu Val Thr Arg Glu Ala Val Thr Glu Ile Leu Gly Ile Glu Pro Asp 115 120 125

Arg Glu Lys Gly Phe His Leu Asp Val Glu Asp Tyr Leu Ser Gly Val

Leu Ile Leu Ala Ser Glu Leu Ser Arg Leu Ser Val Asn Ser Val Thr
150 155 160

Ala Gly Asp Tyr Ser Arg Pro Leu His Ile Ser Thr Phe Ile Asn Glu
165 170 125

Leu Asp Ser Gly Phe Arg Leu Leu Asn Leu Lys Asn Asp Ser Leu Arg

Lys Arg Tyr Asp Gly Leu Lys Tyr Asp Val Lys Lys Val Glu Glu Val

Val Tyr Asp Leu Ser Ile Arg Gly Phe Asn Lys Glu Thr Ala Ala 210 215 220

Cys Val Glu Lys 225

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<212> PRT

<213> Homo sapiens

<400> 2404

Met Asp Leu Gly Lys Pro Met Lys Ser Val Leu Val Val Ala Leu Leu 1 5 10 15

Val Ile Phe Gln Val Cys Leu Cys Gln Asp Glu Val Thr Asp Asp Tyr
20 25 30

Ile Gly Asp Asn Thr Thr Val Asp Tyr Thr Leu Phe Glu Ser Leu Cys
35 40 45

Ser Lys Lys Asp Val Arg Asn Phe Lys Ala Trp Phe Leu Pro Ile Met 50 55 60

Tyr Ser Ile Ile Cys Phe Val Gly Leu Leu Gly Asn Gly Leu Val Val 65 70 75 80

Leu Thr Tyr Ile Tyr Phe Lys Arg Leu Lys Thr Met Thr Asp Thr Tyr
85 90 95

Leu Leu Asn Leu Ala Val Ala Asp Ile Leu Phe Leu Leu Thr Leu Pro 100 105 110

Phe Trp Ala Tyr Ser Ala Ala Lys Ser Trp Val Phe Gly Val His Phe 115 120 125

Cys Lys Leu Ile Phe Ala Ile Tyr Lys Met Ser Phe Phe Ser Gly Met 130 135 140

Leu Leu Leu Cys Ile Ser Ile Asp Arg Tyr Val Ala Ile Val Gln
145 150 155 160

Ala Val Ser Ala His Arg His Arg Ala Arg Val Leu Leu Ile Ser Lys 165 170 175

Leu Ser Cys Val Gly Ile Trp Ile Leu Ala Thr Val Leu Ser Ile Pro 180 185 190

Glu Leu Leu Tyr Ser Asp Leu Gln Arg Ser Ser Ser Glu Gln Ala Met 195 200 205

Arg Cys Ser Leu Ile Thr Glu His Val Glu Ala Phe Ile Thr Ile Gln 210 215 220

Val Ala Gln Met Val Ile Gly Phe Leu Val Pro Leu Leu Ala Met Ser 225 230 235 240

Phe Cys Tyr Leu Val Ile Ile Arg Thr Leu Leu Gln Ala Arg Asn Phe 245 250 255

Glu Arg Asn Lys Ala Ile Lys Val Ile Ile Ala Val Val Val Phe
260 265 270

Ile Val Phe Gln Leu Pro Tyr Asn Gly Val Val Leu Ala Gln Thr Val 275 280 285

Ala Asn Phe Asn Ile Thr Ser Ser Thr Cys Glu Leu Ser Lys Gln Leu 290 295 300

Asn Ile Ala Tyr Asp Val Thr Tyr Ser Leu Ala Cys Val Arg Cys Cys 305 310 315 320

Val Asn Pro Phe Leu Tyr Ala Phe Ile Gly Val Lys Phe Arg Asn Asp 325 330 335

Leu Phe-Lys Leu-Phe Lys Asp-Leu Gly Cys-Leu Ser Gln Glu Gln Leu 340 345 350

Arg Gln Trp Ser Ser Cys Arg His Ile Arg Arg Ser Ser Met Ser Val 355 360 365

Glu Ala Glu Thr Thr Thr Thr Phe Ser Pro 370 375

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<212> PRT

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Gln Pro Ala Ala His Thr Gly Ala Ala Arg Ser Cys Arg Phe Arg Gly 20 25 30

Arg His Tyr Lys Arg Glu Phe Arg Leu Glu Gly Glu Pro Val Ala Leu 35 40 45

- Arg Cys Pro Gln Val Pro Tyr Trp Leu Trp Ala Ser Val Ser Pro Arg 50 55 60
- Ile Asn Leu Thr Trp His Lys Asn Asp Ser Ala Arg Thr Val Pro Gly 65 70 75 80
- Glu Glu Glu Thr Arg Met Trp Ala Gln Asp Gly Ala Leu Trp Leu Leu 85 90 95
- Pro Ala Leu Gln Glu Asp Ser Gly Thr Tyr Val Cys Thr Thr Arg Asn 100 105 110
- Ala Ser Tyr Cys Asp Lys Met Ser Ile Glu Leu Arg Val Phe Glu Asn 115 120 125
- Thr Asp Ala Phe Leu Pro Phe Ile Ser Tyr Pro Gln Ile Leu Thr Leu 130 135 140
- Ser Thr Ser Gly Val Leu Val Cys Pro Asp Leu Ser Glu Phe Thr Arg 145 150 155 160
- Asp Lys Thr Asp Val Lys Ile Gln Trp Tyr Lys Asp Ser Leu Leu Leu 165 170 175
- Asp Lys Asp Asn Glu Lys Phe Leu Ser Val Arg Gly Thr Thr His Leu 180 185 190
- Leu Val His Asp Val Ala Leu Glu Asp Ala Gly Tyr Tyr Arg Cys Val 195 200 205
- Leu Thr Phe Ala His Glu Gly Gln Gln Tyr Asn Ile Thr Arg Ser Ile 210 215 220
- Glu Leu Arg Ile Lys Lys Lys Glu Glu Thr Ile Pro Val Ile Ile 225 230 235 240
- Ser Pro Leu Lys Thr Ile Ser Ala Ser Leu Gly Ser Arg Leu Thr Ile 245 250 255
- Pro Cys Lys Val Phe Leu Gly Thr Gly Thr Pro Leu Thr Thr Met Leu 260 265 270
- Trp Trp Thr Ala Asn Asp Thr His Ile Glu Ser Ala Tyr Pro Gly Gly

285

275 280

Arg Val Thr Glu Gly Pro Arg Gln Glu Tyr Ser Glu Asn Asn Glu Asn 290 295 300

Tyr Ile Glu Val Pro Leu Ile Phe Asp Pro Val Thr Arg Glu Asp Leu 305 310 315 320

His Met Asp Phe Lys Cys Val Val His Asn Thr Leu Ser Phe Gln Thr 325 330 335

Leu Arg Thr Thr Val Lys Glu Ala Ser Ser Thr Phe Ser Trp Gly Ile 340 345 350

Val Leu Ala Pro Leu Ser Leu Ala Phe Leu Val Leu Gly Gly Ile Trp 355 360 365

Met His Arg Arg Cys Lys His Arg Thr Gly Lys Ala Asp Gly Leu Thr 370 375 380

Val Leu Trp Pro His His Gln Asp Phe Gln Ser Tyr Pro Lys 385 390 395

<210> 2406

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<212> PRT

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Ile Cys Gly Gly Arg Val Val Cys Arg Pro Lys Lys Thr Glu Val Ser 20 25 30

Pro Thr Cys Ser Ile Pro His Asp Leu Gly Gly Gly Pro Pro Thr Thr 35 40 45

Val Gly Gly Arg Arg Met Gly Met Arg Lys Trp Glu Arg Arg Glu Arg 50 55 60

Val Ser Pro Pro Ser Pro His Pro His Pro Leu Pro Pro Asp Ile Met 65 70 75 80

Ser Leu Lys Arg Met Leu Glu Lys Leu Gly Val Pro Lys Thr His Leu 85 90 95

Glu Leu Lys Lys Leu Ile Gly Glu Val Ser Ser Gly Ser Gly Glu Thr 100 105 110

Phe Ser Tyr Pro Asp Phe Leu Arg Met Met Leu Gly Lys Arg Ser Ala 115 120 125

Ile Leu Lys Met 130

<210> 2407

<211> 587

<212> PRT

<213> Homo sapiens

<400> 2407

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Gly Pro Thr Ser Leu Leu Gly Lys Val Val Lys Thr His Gln Phe Leu 20 25 30

Phe Gly Ile Gly Arg Cys Pro Ile Leu Ala Thr Gln Gly Pro Asn Cys 35 40 45

Ser Gln Ile His Leu Lys Ala Thr Lys Ala Gly Gly Asp Ser Pro Ser 50 55 60

Trp Ala Lys Gly His Cys Pro Phe Met Leu Ser Glu Leu Gln Asp Gly 65 70 75 80

Lys Ser Lys Ile Val Gln Lys Ala Ala Pro Glu Val Gln Glu Asp Val 85 90 95

Lys Ala Phe Lys Thr Asp Leu Pro Ser Ser Leu Val Ser Val Ser Leu 100 105 110

Arg Lys Pro Phe Ser Gly Pro Gln Glu Gln Glu Gln Ile Ser Gly Lys 115 120 125

Val Thr His Leu Ile Gln Asn Asn Met Pro Gly Asn Tyr Val Phe Ser 130 135 140

Tyr Asp Gln Phe Phe Arg Asp Lys Ile Met Glu Lys Lys Gln Asp His 145 150 155 160

Thr Tyr Arg Val Phe Lys Thr Val Asn Arg Trp Ala Asp Ala Tyr Pro

165 170 175

Phe Ala Gln His Phe Phe Glu Ala Ser Val Ala Ser Lys Asp Val Ser 180 185 190

Val Trp Cys Ser Asn Asp Tyr Leu Gly Met Ser Arg His Pro Gln Val

Leu Gln Ala Thr Gln Glu Thr Leu Gln Arg His Gly Ala Gly Ala Gly 210 220

Gly Thr Arg Asn Ile Ser Gly Thr Ser Lys Phe His Val Glu Leu Glu 225 230 235 240

Gln Glu Leu Ala Glu Leu His Gln Lys Asp Ser Ala Leu Leu Phe Ser 245 250 255

Ser Cys Phe Val Ala Asn Asp Ser Thr Leu Phe Thr Leu Ala Lys Ile 260 265 270

Leu Pro Gly Cys Glu Ile Tyr Ser Asp Ala Gly Asn His Ala Ser Met 275 280 285

Ile Gln Gly Ile Arg Asn Ser Gly Ala Ala Lys Phe Val Phe Arg His 290 295 300

Asn Asp Pro Asp His Leu Lys Lys Leu Leu Glu Lys Ser Asn Pro Lys 305 310 315 320

Ile Pro Lys Ile Val Ala Phe Glu Thr Val His Ser Met Asp Gly Ala 325 330 335

Ile Cys Pro Leu Glu Glu Leu Cys Asp Val Ser His Gln Tyr Gly Ala 340 345 350

Leu Thr Phe Val Asp Glu Val His Ala Val Gly Leu Tyr Gly Ser Arg 355 360 365

Gly Ala Gly Ile Gly Glu Arg Asp Gly Ile Met His Lys Ile Asp Ile 370 380

Ile Ser Gly Thr Leu Gly Lys Ala Phe Gly Cys Val Gly Gly Tyr Ile 385 390 395 400

Ala Ser Thr Arg Asp Leu Val Asp Met Val Arg Ser Tyr Ala Ala Gly
405 410 415

Phe Ile Phe Thr Thr Ser Leu Pro Pro Met Val Leu Ser Gly Ala Leu 420 425 430

Glu Ser Val Arg Leu Leu Lys Gly Glu Glu Gly Gln Ala Leu Arg Arg 435 440 445

Ala His Gln Arg Asn Val Lys His Met Arg Gln Leu Leu Met Asp Arg 450 455 460

Gly Leu Pro Val Ile Pro Cys Pro Ser His Ile Ile Pro Ile Arg Val 465 470 475 480

Gly Asn Ala Ala Leu Asn Ser Lys Leu Cys Asp Leu Leu Leu Ser Lys 485 490 495

His Gly Ile Tyr Val Gln Ala Ile Asn Tyr Pro Thr Val Pro Arg Gly 500 505 510

Glu Glu Leu Leu Arg Leu Ala Pro Ser Pro His His Ser Pro Gln Met 515 520 525

Met Glu Asp Phe Val Glu Lys Leu Leu Leu Ala Trp Thr Ala Val Gly 530 535 540

Leu Pro Leu Gln Asp Val Ser Val Ala Ala Cys Asn Phe Cys Arg Arg 545 550 555 560

Pro Val His Phe Glu Leu Met Ser Glu Trp Glu Arg Ser Tyr Phe Gly
565 570 575

Asn Met Gly Pro Gln Tyr Val Thr Thr Tyr Ala 580 585

<210> 2408

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<212> PRT

<213> Homo sapiens

<400> 2408

Met Ser Ala Thr Trp Cys Ser Pro Glu Gly Gln Gly Met Gly Gln Gly
1 5 10 15

Pro Gly Arg Glu Val Gly Gly Asn Ser Ala Ala Ser Gly Pro Ala Ser 20 25 30

Pro Ile Arg Asp Pro Cys Leu Ser Glu Ala Gly Leu Lys Gly Pro Pro 35 40 45

Ser Ala His Pro Arg Arg Leu Cys Leu Leu His Arg Leu Val Cys Phe 50 55 60

Ser Gly Gly Leu Thr Ser Ile Gln Leu Ser Pro Arg Thr Cys Cys Ser 65 70 75 80

His Gln Trp Ala Gln Leu Phe Ser Pro Ala Cys Phe Pro Gln Trp Arg 85 90 95

Ala Pro Gly Cys Ser Leu Asp Asp Ser Arg Ser Leu Thr Arg Ile Arg 100 105 110

Pro Val His Leu Pro Gly Pro Ser Leu Asp 115 120

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Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr 1 5 10 15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu 35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile 50 55 60 .

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr 85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg 115 120 125 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr 130 135

- Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile 150 155
- Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
- Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp 185
- Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
- Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
- Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro 235
- Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly 250
- Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg 265 270
- Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val 280 285
- <210> 2410 <211> 588
- <212> PRT
- <213> Homo sapiens
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- Val Glu Lys His Ala Lys Gly Gln Asp Leu Leu Lys Arg Val Cys Glu 20 25
- His Leu Asn Leu Leu Glu Glu Asp Tyr Phe Gly Leu Ala Ile Trp Asp 35 40

Asn Ala Thr Ser Lys Thr Trp Leu Asp Ser Ala Lys Glu Ile Lys Lys
50 55 60

- Gln Val Arg Gly Val Pro Trp Asn Phe Thr Phe Asn Val Lys Phe Tyr 65 70 75 80
- Pro Pro Asp Pro Ala Gln Leu Thr Glu Asp Ile Thr Arg Tyr Tyr Leu 85 90 95
- Cys Leu Gln Leu Arg Gln Asp Ile Val Ala Gly Arg Leu Pro Cys Ser 100 105 110
- Phe Ala Thr Leu Ala Leu Leu Gly Ser Tyr Thr Ile Gln Ser Glu Leu 115 120 125
- Gly Asp Tyr Asp Pro Glu Leu His Gly Val Asp Tyr Val Ser Asp Phe 130 140
- Lys Leu Ala Pro Asn Gln Thr Lys Glu Leu Glu Glu Lys Val Met Glu 145 150 155 160
- Leu His Lys Ser Tyr Arg Ser Met Thr Pro Ala Gln Ala Asp Leu Glu 165 170 175
- Phe Leu Glu Asn Ala Lys Lys Leu Ser Met Tyr Gly Val Asp Leu His
 180 185 190
- Lys Ala Lys Asp Leu Glu Gly Val Asp Ile Ile Leu Gly Val Cys Ser 195 200 205
- Ser Gly Leu Leu Val Tyr Lys Asp Lys Leu Arg Ile Asn Arg Phe Pro 210 215 220
- Trp Pro Lys Val Leu Lys Ile Ser Tyr Lys Arg Ser Ser Phe Phe Ile 225 230 235 240
- Lys Ile Arg Pro Gly Glu Gln Glu Gln Tyr Glu Ser Thr Ile Gly Phe 245 250 255
- Lys Leu Pro Ser Tyr Arg Ala Ala Lys Lys Leu Trp Lys Val Cys Val 260 265 270
- Glu His His Thr Phe Phe Arg Leu Thr Ser Thr Asp Thr Ile Pro Lys 275 280 285
- Ser Lys Phe Leu Ala Leu Gly Ser Lys Phe Arg Tyr Ser Gly Arg Thr

290 295 300

Gln Ala Gln Thr Arg Gln Ala Ser Ala Leu Ile Asp Arg Pro Ala Pro 305 310 315 320

- His Phe Glu Arg Thr Ala Ser Lys Arg Ala Ser Arg Ser Leu Asp Gly 325 330 335
- Ala Ala Ala Val Asp Ser Ala Asp Arg Ser Pro Arg Pro Thr Ser Ala 340 345 350
- Pro Ala Ile Thr Gln Gly Gln Val Ala Glu Gly Gly Val Leu Asp Ala 355 360 365
- Ser Ala Lys Lys Thr Val Val Pro Lys Ala Gln Lys Glu Thr Val Lys 370 375 380
- Ala Glu Val Lys Lys Glu Asp Glu Pro Pro Glu Gln Ala Glu Pro Glu 385 390 395 400
- Pro Thr Glu Ala Trp Lys Lys Lys Arg Glu Arg Leu Asp Gly Glu Asn 405 410 415
- Ile Tyr Ile Arg His Ser Asn Leu Met Leu Glu Asp Leu Asp Lys Ser 420 425 430
- Gln Glu Glu Ile Lys Lys His His Ala Ser Ile Ser Glu Leu Lys Lys 435 440 445
- Asn Phe Met Glu Ser Val Pro Glu Pro Arg Pro Ser Glu Trp Asp Lys 450 455 460
- Arg Leu Ser Thr His Ser Pro Phe Arg Thr Leu Asn Ile Asn Gly Gln 465 470 475 480
- Ile Pro Thr Gly Glu Gly Pro Pro Leu Val Lys Thr Gln Thr Val Thr 485 490 495
- Ile Ser Asp Asn Ala Asn Ala Val Lys Ser Glu Ile Pro Thr Lys Asp 500 505 505
- Val Pro Ile Val His Thr Glu Thr Lys Thr Ile Thr Tyr Glu Ala Ala 515 520 525
- Gln Thr Val Lys Gly Gly Ile Ser Glu Thr Arg Ile Glu Lys Arg Ile 530 535 540

Val Ile Thr Gly Asp Ala Asp Ile Asp His Asp Gln Val Leu Val Gln 545 550 555 560

Ala Ile Lys Glu Ala Lys Glu Gln His Pro Asp Met Ser Val Thr Lys 565 570 575

Val Val His Gln Glu Thr Glu Ile Ala Asp Glu 580 585

<210> 2411

<211> 982

<212> PRT

<213> Homo sapiens

<400> 2411

Met Ala Asn Ser Met Asn Gly Arg Asn Pro Gly Gly Arg Gly Asn 1 5 10 15

Pro Arg Lys Gly Arg Ile Leu Gly Ile Ile Asp Ala Ile Gln Asp Ala
20 25 30

Val Gly Pro Pro Lys Gln Ala Ala Ala Asp Arg Arg Thr Val Glu Lys
35 40 45

Thr Trp Lys Leu Met Asp Lys Val Val Arg Leu Cys Gln Asn Pro Lys 50 55 60

Leu Gln Leu Lys Asn Ser Pro Pro Tyr Ile Leu Asp Ile Leu Pro Asp 65 70 75 80

Thr Tyr Gln His Leu Arg Leu Ile Leu Ser Lys Tyr Asp Asp Asn Gln 85 90 95

Lys Leu Ala Gln Leu Ser Glu Asn Glu Tyr Phe Lys Ile Tyr Ile Asp 100 105 110

Ser Leu Met Lys Lys Ser Lys Arg Ala Ile Arg Leu Phe Lys Glu Gly 115 120 125

Lys Glu Arg Met Tyr Glu Glu Gln Ser Gln Asp Arg Asn Leu Thr 130 140

Lys Leu Ser Leu Ile Phe Ser His Met Leu Ala Glu Ile Lys Ala Ile 145 150 155 160

Phe Pro Asn Gly Gln Phe Gln Gly Asp Asn Phe Arg Ile Thr Lys Ala 165 170 175

- Asp Ala Ala Glu Phe Trp Arg Lys Phe Phe Gly Asp Lys Thr Ile Val 180 185 190
- Pro Trp Lys Val Phe Arg Gln Cys Leu His Glu Val His Gln Ile Ser
- Ser Gly Leu Glu Ala Met Ala Leu Lys Ser Thr Ile Asp Leu Thr Cys 210 215 220
- Asn Asp Tyr Ile Ser Val Phe Glu Phe Asp Ile Phe Thr Arg Leu Phe 225 230 235 240
- Gln Pro Trp Gly Ser Ile Leu Arg Asn Trp Asn Phe Leu Ala Val Thr 245 250 255
- His Pro Gly Tyr Met Ala Phe Leu Thr Tyr Asp Glu Val Lys Ala Arg 260 265 270
- Leu Gln Lys Tyr Ser Thr Lys Pro Gly Ser Tyr Ile Phe Arg Leu Ser 275 280 285
- Cys Thr Arg Leu Gly Gln Trp Ala Ile Gly Tyr Val Thr Gly Asp Gly 290 295 300
- Asn Ile Leu Gln Thr Ile Pro His Asn Lys Pro Leu Phe Gln Ala Leu 305 310 315 320
- Ile Asp Gly Ser Arg Glu Gly Phe Tyr Leu Tyr Pro Asp Gly Arg Ser 325 330 335
- Tyr Asn Pro Asp Leu Thr Gly Leu Cys Glu Pro Thr Pro His Asp His 340 345 350
- Ile Lys Val Thr Glu Glu Glu Tyr Glu Leu Tyr Cys Glu Met Gly Ser 355 360 365
- Thr Phe Gln Leu Cys Lys Ile Cys Ala Glu Asn Asp Lys Asp Val Lys 370 375 380
- Ile Glu Pro Cys Gly His Leu Met Cys Thr Ser Cys Leu Thr Ala Trp 385 390 395 400.
- Gln Glu Ser Asp Gly Gln Gly Cys Pro Phe Cys Arg Cys Glu Ile Lys

405

410

415

Gly Thr Glu Pro Ile Ile Val Asp Pro Phe Asp Pro Arg Asp Glu Gly
420 425 430

Ser Arg Cys Cys Ser Ile Ile Asp Pro Phe Gly Met Pro Met Leu Asp 435 440 445

Leu Asp Asp Asp Asp Asp Glu Glu Ser Leu Met Met Asn Arg Leu 450 455 460

Ala Asn Val Arg Lys Cys Thr Asp Arg Gln Asn Ser Pro Val Thr Ser 465 470 475 480

Pro Gly Ser Ser Pro Leu Ala Gln Arg Arg Lys Pro Gln Pro Asp Pro 485 490 495

Leu Gln Ile Pro His Leu Ser Leu Pro Pro Val Pro Pro Arg Leu Asp 500 505 510

Leu Ile Gln Lys Gly Ile Val Arg Ser Pro Cys Gly Ser Pro Thr Gly 515 520 525

Ser Pro Lys Ser Ser Pro Cys Met Val Arg Lys Gln Asp Lys Pro Leu 530 535 540

Pro Ala Pro Pro Pro Pro Leu Arg Asp Pro Pro Pro Pro Pro Pro Glu 545 550 555 560

Arg Pro Pro Pro Ile Pro Pro Asp Asn Arg Leu Ser Arg His Ile His 565 570 575

His Val Glu Ser Val Pro Ser Lys Asp Pro Pro Met Pro Leu Glu Ala 580 585 590

Trp Cys Pro Arg Asp Val Phe Gly Thr Asn Gln Leu Val Gly Cys Arg 595 600 605

Leu Leu Gly Glu Gly Ser Pro Lys Pro Gly Ile Thr Ala Ser Ser Asn 610 615 620

Val Asn Gly Arg His Ser Arg Val Gly Ser Asp Pro Val Leu Met Arg 625 630 635 640

Lys His Arg Arg His Asp Leu Pro Leu Glu Gly Ala Lys Val Phe Ser 645 650 655

- Asn Gly His Leu Gly Ser Glu Glu Tyr Asp Val Pro Pro Arg Leu Ser 660 665 670
- Pro Pro Pro Pro Val Thr Thr Leu Leu Pro Ser Ile Lys Cys Thr Gly 675 680 685
- Pro Leu Ala Asn Ser Leu Ser Glu Lys Thr Arg Asp Pro Val Glu Glu 690 695 700
- Asp Asp Glu Tyr Lys Ile Pro Ser Ser His Pro Val Ser Leu Asn 705 710 715 720
- Ser Gln Pro Ser His Cys His Asn Val Lys Pro Pro Val Arg Ser Cys 725 730 735
- Asp Asn Gly His Cys Met Leu Asn Gly Thr His Gly Pro Ser Ser Glu 740 745 750
- Lys Lys Ser Asn Ile Pro Asp Leu Ser Ile Tyr Leu Lys Gly Asp Val 755 760 765
- Phe Asp Ser Ala Ser Asp Pro Val Pro Leu Pro Pro Ala Arg Pro Pro 770 775 780
- Thr Arg Asp Asn Pro Lys His Gly Ser Ser Leu Asn Arg Thr Pro Ser 785 790 795 800
- Asp Tyr Asp Leu Leu Ile Pro Pro Leu Gly Glu Asp Ala Phe Asp Ala 805 810 815
- Leu Pro Pro Ser Leu Pro Pro Pro Pro Pro Pro Ala Arg His Ser Leu 820 825 830
- Ile Glu His Ser Lys Pro Pro Gly Ser Ser Ser Arg Pro Ser Ser Gly 835 840 845
- Gln Asp Leu Phe Leu Leu Pro Ser Asp Pro Phe Val Asp Leu Ala Ser 850 855 860
- Gly Gln Val Pro Leu Pro Pro Ala Arg Arg Leu Pro Gly Glu Asn Val 865 870 875 880
- Lys Thr Asn Arg Thr Ser Gln Asp Tyr Asp Gln Leu Pro Ser Cys Ser 885 890 895

Asp Gly Ser Gln Ala Pro Ala Arg Pro Pro Lys Pro Arg Pro Arg Arg 900 905 910

- Thr Ala Pro Glu Ile His His Arg Lys Pro His Gly Pro Glu Ala Ala 915 920 925
- Leu Glu Asn Val Asp Ala Lys Ile Ala Lys Leu Met Gly Glu Gly Tyr 930 935 940
- Ala Phe Glu Glu Val Lys Arg Ala Leu Glu Ile Ala Gln Asn Asn Val 945 950 955 960
- Glu Val Ala Arg Ser Ile Leu Arg Glu Phe Ala Phe Pro Pro Val 965 970 975

Ser Pro Arg Leu Asn Leu 980

<210> 2412

<211> 352

<212> PRT

<213> Homo sapiens

<400> 2412

- Met Asp Tyr Gln Val Ser Ser Pro Ile Tyr Asp Ile Asn Tyr Tyr Thr

 5 10 15
- Ser Glu Pro Cys Gln Lys Ile Asn Val Lys Gln Ile Ala Ala Arg Leu 20 25 30
- Leu Pro Pro Leu Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn 35 40 45
- Met Leu Val Ile Leu Ile Leu Ile Asn Cys Lys Arg Leu Lys Ser Met 50 55 60
- Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Phe Phe Leu 65 70 75 80
- Leu Thr Val Pro Phe Trp Ala His Tyr Ala Ala Ala Gln Trp Asp Phe 85 90 95
- Gly Asn Thr Met Cys Gln Leu Leu Thr Gly Leu Tyr Phe Ile Gly Phe 100 105 110
- Phe Ser Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu

115 120 125

Ala Val Val His Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe 130 135 140

Gly Val Val Thr Ser Val Ile Thr Trp Val Val Ala Val Phe Ala Ser 145 150 155 160

Leu Pro Gly Ile Ile Phe Thr Arg Ser Gln Lys Glu Gly Leu His Tyr 165 170 175

Thr Cys Ser Ser His Phe Pro Tyr Ser Gln Tyr Gln Phe Trp Lys Asn 180 185 190

Phe Gln Thr Leu Lys Ile Val Ile Leu Gly Leu Val Leu Pro Leu Leu 195 200 205

Val Met Val Ile Cys Tyr Ser Gly Ile Leu Lys Thr Leu Leu Arg Cys 210 215 220

Arg Asn Glu Lys Lys Arg His Arg Ala Val Arg Leu Ile Phe Thr Ile 225 230 235 240

Met Ile Val Tyr Phe Leu Phe Trp Ala Pro Tyr Asn Ile Val Leu Leu 245 250 255

Leu Asn Thr Phe Gln Glu Phe Phe Gly Leu Asn Asn Cys Ser Ser Ser Ser 260 265 270

Asn Arg Leu Asp Gln Ala Met Gln Val Thr Glu Thr Leu Gly Met Thr 275 280 285

His Cys Cys Ile Asn Pro Ile Ile Tyr Ala Phe Val Gly Glu Lys Phe 290 295 300

Arg Asn Tyr Leu Leu Val Phe Phe Gln Lys His Ile Ala Lys Arg Phe 305 310 315 320

Cys Lys Cys Cys Ser Ile Phe Gln Gln Glu Ala Pro Glu Arg Ala Ser 325 330 335

Ser Val Tyr Thr Arg Ser Thr Gly Glu Gln Glu Ile Ser Val Gly Leu 340 345 350

<210> 2413 <211> 750 <212> PRT

<213> Homo sapiens

<400> 2413

Met Gly Lys Ser Glu Ser Gln Met Asp Ile Thr Asp Ile Asn Thr Pro 1 5 10 15

Lys Pro Lys Lys Gln Arg Trp Thr Arg Leu Glu Ile Ser Leu Ser 20 25 30

Val Leu Val Leu Leu Thr Ile Ile Ala Val Arg Met Ile Ala Leu 35 40 45

Tyr Ala Thr Tyr Asp Asp Gly Ile Cys Lys Ser Ser Asp Cys Ile Lys
50 55 60

Ser Ala Ala Arg Leu Ile Gln Asn Met Asp Ala Thr Thr Glu Pro Cys 70 75 80

Arg Asp Phe Phe Lys Tyr Ala Cys Gly Gly Trp Leu Lys Arg Asn Val 85 90 95

Ile Pro Glu Thr Ser Ser Arg Tyr Gly Asn Phe Asp Ile Leu Arg Asp 100 105 110

Glu Leu Glu Val Val Leu Lys Asp Val Leu Gln Glu Pro Lys Thr Glu
115 120 125

Asp Ile Val Ala Val Gln Lys Ala Lys Ala Leu Tyr Arg Ser Cys Ile 130 135 140

Asn Glu Ser Ala Ile Asp Ser Arg Gly Glu Pro Leu Leu Lys Leu 145 150 155 160

Leu Pro Asp Ile Tyr Gly Trp Pro Val Ala Thr Glu Asn Trp Glu Gln - 165 170 175

Lys Tyr Gly Ala Ser Trp Thr Ala Glu Lys Ala Ile Ala Gln Leu Asn 180 185 190

Ser Lys Tyr Gly Lys Lys Val Leu Ile Asn Leu Phe Val Gly Thr Asp 195 200 205

Asp Lys Asn Ser Val Asn His Val Ile His Ile Asp Gln Pro Arg Leu 210 215 220

Gly Leu Pro Ser Arg Asp Tyr Tyr Glu Cys Thr Gly Ile Tyr Lys Glu 230 235 240

- Ala Cys Thr Ala Tyr Val Asp Phe Met Ile Ser Val Ala Arg Leu Ile 245 250 255
- Arg Gln Glu Arg Leu Pro Ile Asp Glu Asn Gln Leu Ala Leu Glu 260 265 270
- Met Asn Lys Val Met Glu Leu Glu Lys Glu Ile Ala Asn Ala Thr Ala 275 280 285
- Lys Pro Glu Asp Arg Asn Asp Pro Met Leu Leu Tyr Asn Lys Met Arg 290 295 300
- Leu Ala Gln Ile Gln Asn Asn Phe Ser Leu Glu Ile Asn Gly Lys Pro 305 310 315 320
- Phe Ser Trp Leu Asn Phe Thr Asn Glu Ile Met Ser Thr Val Asn Ile 325 330 335
- Ser Ile Thr Asn Glu Glu Asp Val Val Val Tyr Ala Pro Glu Tyr Leu 340 345 350
- Thr Lys Leu Lys Pro Ile Leu Thr Lys Tyr Ser Ala Arg Asp Leu Gln 355 360 365
- Asn Leu Met Ser Trp Arg Phe Ile Met Asp Leu Val Ser Ser Leu Ser 370 375 380
- Arg Thr Tyr Lys Glu Ser Arg Asn Ala Phe Arg Lys Ala Leu Tyr Gly 385 390 395 400
- Thr Thr Ser Glu Thr Ala Thr Trp Arg Arg Cys Ala Asn Tyr Val Asn 405 410 415
- Gly Asn Met Glu Asn Ala Val Gly Arg Leu Tyr Val Glu Ala Ala Phe 420 425 430
- Ala Gly Glu Ser Lys His Val Val Glu Asp Leu Ile Ala Gln Ile Arg 435 440 445
- Glu Val Phe Ile Gln Thr Leu Asp Asp Leu Thr Trp Met Asp Ala Glu 450 455 460
- Thr Lys Lys Arg Ala Glu Glu Lys Ala Leu Ala Ile Lys Glu Arg Ile

470

475

480

- Gly Tyr Pro Asp Asp Ile Val Ser Asn Asp Asn Lys Leu Asn Asn Glu 485 490 495
- Tyr Leu Glu Leu Asn Tyr Lys Glu Asp Glu Tyr Phe Glu Asn Ile Ile
 500 505 510
- Gln Asn Leu Lys Phe Ser Gln Ser Lys Gln Leu Lys Lys Leu Arg Glu 515 520 525
- Lys Val Asp Lys Asp Glu Trp Ile Ser Gly Ala Ala Val Val Asn Ala 530 535 540
- Phe Tyr Ser Ser Gly Arg Asn Gln Ile Val Phe Pro Ala Gly Ile Leu 545 550 555 560
- Gln Pro Pro Phe Phe Ser Ala Gln Gln Ser Asn Ser Leu Asn Tyr Gly 565 570 575
- Gly Ile Gly Met Val Ile Gly His Glu Ile Thr His Gly Phe Asp Asp 580 585 590
- Asn Gly Arg Asn Phe Asn Lys Asp Gly Asp Leu Val Asp Trp Trp Thr 595 600 605
- Gln Gln Ser Ala Ser Asn Phe Lys Glu Gln Ser Gln Cys Met Val Tyr 610 615 620
- Gln Tyr Gly Asn Phe Ser Trp Asp Leu Ala Gly Gly Gln His Leu Asn 625 630 635 640
- Gly Ile Asn Thr Leu Gly Glu Asn Ile Ala Asp Asn Gly Gly Leu Gly 645 650 655
- Gln Ala Tyr Arg Ala Tyr Gln Asn Tyr Ile Lys Lys Asn Gly Glu Glu 660 665 670
- Lys Leu Pro Gly Leu Asp Leu Asn His Lys Gln Leu Phe Phe Leu 675 680 685
- Asn Phe Ala Gln Val Trp Cys Gly Thr Tyr Arg Pro Glu Tyr Ala Val 690 695 700
- Asn Ser Ile Lys Thr Asp Val His Ser Pro Gly Asn Phe Arg Ile Ile 705 710 715 720

Gly Thr Leu Gln Asn Ser Ala Glu Phe Ser Glu Ala Phe His Cys Arg
725 730 735

Lys Asn Ser Tyr Met Asn Pro Glu Lys Lys Cys Arg Val Trp
740 745 750

<210> 2414

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2414

Met Asp Asn Gln Gly Val Ile Tyr Ser Asp Leu Asn Leu Pro Pro Asn 1 5 10 15

Pro Lys Arg Gln Gln Arg Lys Pro Lys Gly Asn Lys Ser Ser Ile Leu 20 25 30

Ala Thr Glu Gln Glu Ile Thr Tyr Ala Glu Leu Asn Leu Gln Lys Ala
35 40 45

Ser Gln Asp Phe Gln Gly Asn Asp Lys Thr Tyr His Cys Lys Asp Leu 50 55 60

Pro Ser Ala Pro Glu Lys Leu Ile Val Gly Ile Leu Gly Ile Ile Cys 65 70 75 80

Leu Ile Leu Met Ala Ser Val Val Thr Ile Val Val Ile Pro Ser Thr 85 90 95

Leu Ile Gln Arg His Asn Asn Ser Ser Leu Asn Thr Arg Thr Gln Lys
100 105 110

Ala Arg His Cys Gly His Cys Pro Glu Glu Trp Ile Thr Tyr Ser Asn 115 120 125

Ser Cys Tyr Tyr Ile Gly Lys Glu Arg Arg Thr Trp Glu Glu Ser Leu 130 135 140

Leu Ala Cys Thr Ser Lys Asn Ser Ser Leu Leu Ser Ile Asp Asn Glu
145 150 155 160

Glu Glu Met Lys Phe Leu Ser Ile Ile Ser Pro Ser Ser Trp Ile Gly
165 170 175

Val Phe Arg Asn Ser Ser His His Pro Trp Val Thr Met Asn Gly Leu 180 185 190

Ala Phe Lys His Glu Ile Lys Asp Ser Asp Asn Ala Glu Leu Asn Cys 195 200 205

Ala Val Leu Gln Val Asn Arg Leu Lys Ser Ala Gln Cys Gly Ser Ser 210 215 220

Ile Ile Tyr His Cys Lys His Lys Leu 225 230

<210> 2415

<211> 290

<212> PRT

<213> Homo sapiens

<400> 2415

Met Gly Gly Gly Ala Gly Glu Arg Leu Phe Thr Ser Ser Cys Leu Val 5 10 15

Gly Leu Val Pro Leu Gly Leu Arg Ile Ser Leu Val Thr Cys Pro Leu 20 25 30

Gln Cys Gly Ile Met Trp Gln Leu Leu Leu Pro Thr Ala Leu Leu Leu 35 40 45

Leu Val Ser Ala Gly Met Arg Thr Glu Asp Leu Pro Lys Ala Val Val 50 55 60

Phe Leu Glu Pro Gln Trp Tyr Arg Val Leu Glu Lys Asp Ser Val Thr 65 70 75 80

Leu Lys Cys Gln Gly Ala Tyr Ser Pro Glu Asp Asn Ser Thr Gln Trp 85 90 95

Phe His Asn Glu Ser Leu Ile Ser Ser Gln Ala Ser Ser Tyr Phe Ile 100 105 110

Asp Ala Ala Thr Val Asp Asp Ser Gly Glu Tyr Arg Cys Gln Thr Asn 115 120 125

Leu Ser Thr Leu Ser Asp Pro Val Gln Leu Glu Val His Ile Gly Trp 130 135 140

Leu Leu Cln Ala Pro Arg Trp Val Phe Lys Glu Glu Asp Pro Ile 145 150 155 160 His Leu Arg Cys His Ser Trp Lys Asn Thr Ala Leu His Lys Val Thr 165 170 175

- Tyr Leu Gln Asn Gly Lys Gly Arg Lys Tyr Phe His His Asn Ser Asp 180 185 190
- Phe Tyr Ile Pro Lys Ala Thr Leu Lys Asp Ser Gly Ser Tyr Phe Cys
 195 200 205
- Arg Gly Leu Val Gly Ser Lys Asn Val Ser Ser Glu Thr Val Asn Ile 210 215 220
- Thr Ile Thr Gln Gly Leu Ala Val Ser Thr Ile Ser Ser Phe Phe Pro 225 230 235 240
- Pro Gly Tyr Gln Val Ser Phe Cys Leu Val Met Val Leu Leu Phe Ala 245 250 255
- Val Asp Thr Gly Leu Tyr Phe Ser Val Lys Thr Asn Ile Arg Ser Ser 260 265 270
- Thr Arg Asp Trp Lys Asp His Lys Phe Lys Trp Arg Lys Asp Pro Gln 275 280 285

Asp Lys 290

<210> 2416

<211> 233

<212> PRT

<213> Homo sapiens

<400> 2416

- Met Trp Gln Leu Leu Leu Pro Thr Ala Leu Leu Leu Leu Val Ser Ala 1 5 10 15
- Gly Met Arg Thr Glu Asp Leu Pro Lys Ala Val Val Phe Leu Glu Pro
- Gln Trp Tyr Ser Val Leu Glu Lys Asp Ser Val Thr Leu Lys Cys Gln 35 40 45
- Gly Ala Tyr Ser Pro Glu Asp Asn Ser Thr Gln Trp Phe His Asn Glu 50 55 60

Ser Leu Ile Ser Ser Gln Ala Ser Ser Tyr Phe Ile Asp Ala Ala Thr 65 70 75 80

Val Asn Asp Ser Gly Glu Tyr Arg Cys Gln Thr Asn Leu Ser Thr Leu 85 90 95

Ser Asp Pro Val Gln Leu Glu Val His Ile Gly Trp Leu Leu Gln 100 105 110

Ala Pro Arg Trp Val Phe Lys Glu Glu Asp Pro Ile His Leu Arg Cys 115 120 125

His Ser Trp Lys Asn Thr Ala Leu His Lys Val Thr Tyr Leu Gln Asn 130 135 140

Gly Lys Asp Arg Lys Tyr Phe His His Asn Ser Asp Phe His Ile Pro 145 150 155 160

Lys Ala Thr Leu Lys Asp Ser Gly Ser Tyr Phe Cys Arg Gly Leu Val 165 170 175

Gly Ser Lys Asn Val Ser Ser Glu Thr Val Asn Ile Thr Ile Thr Gln
180 185 190

Gly Leu Ala Val Ser Thr Ile Ser Ser Phe Ser Pro Pro Gly Tyr Gln
195 200 205

Val Ser Phe Cys Leu Val Met Val Leu Leu Phe Ala Val Asp Thr Gly 210 215 220

Leu Tyr Phe Ser Val Lys Thr Asn Ile 225 230

<210> 2417

<211> 525

<212> PRT

<213> Homo sapiens

<400> 2417

Met Trp Glu Ala Gln Phe Leu Gly Leu Leu Phe Leu Gln Pro Leu Trp 5 10 15

Val Ala Pro Val Lys Pro Leu Gln Pro Gly Ala Glu Val Pro Val Val 20 25 30

Trp Ala Gln Glu Gly Ala Pro Ala Gln Leu Pro Cys Ser Pro Thr Ile 35 40 45

Pro	Leu 50	Gln	Asp	Leu	Ser	Leu 55	Leu	Arg	Arg	Ala	Gly 60	Val	Thr	Trp	Gln
His 65	Gln	Pro	Asp	Ser	Gly 70	Pro	Pro	Ala	Ala	Ala 75	Pro	Gly	His	Pro	Leu 80

- Ala Pro Gly Pro His Pro Ala Ala Pro Ser Ser Trp Gly Pro Arg Pro 85 90 95
- Arg Arg Tyr Thr Val Leu Ser Val Gly Pro Gly Gly Leu Arg Ser Gly 100 105 110
- Arg Leu Pro Leu Gln Pro Arg Val Gln Leu Asp Glu Arg Gly Arg Gln 115 120 125
- Arg Gly Asp Phe Ser Leu Trp Leu Arg Pro Ala Arg Arg Ala Asp Ala 130 135 140
- Gly Glu Tyr Arg Ala Ala Val His Leu Arg Asp Arg Ala Leu Ser Cys 145 150 155 160
- Arg Leu Arg Leu Gly Gln Ala Ser Met Thr Ala Ser Pro Pro 165 170 175
- Gly Ser Leu Arg Ala Ser Asp Trp Val Ile Leu Asn Cys Ser Phe Ser 180 185 190
- Arg Pro Asp Arg Pro Ala Ser Val His Trp Phe Arg Asn Arg Gly Gln
 195 200 205
- Gly Arg Val Pro Val Arg Glu Ser Pro His His Leu Ala Glu Ser 210 215 220
- Phe Leu Phe Leu Pro Gln Val Ser Pro Met Asp Ser Gly Pro Trp Gly 225 230 235 240
- Cys Ile Leu Thr Tyr Arg Asp Gly Phe Asn Val Ser Ile Met Tyr Asn 245 250 255
- Leu Thr Val Leu Gly Leu Glu Pro Pro Thr Pro Leu Thr Val Tyr Ala 260 265 270
- Gly Ala Gly Ser Arg Val Gly Leu Pro Cys Arg Leu Pro Ala Gly Val 275 280 285

Gly Thr Arg Ser Phe Leu Thr Ala Lys Trp Thr Pro Pro Gly Gly Gly 290 . 295 300

- Pro Asp Leu Leu Val Thr Gly Asp Asn Gly Asp Phe Thr Leu Arg Leu 305 310 315 320
- Glu Asp Val Ser Gln Ala Gln Ala Gly Thr Tyr Thr Cys His Ile His 325 330 335
- Leu Gln Glu Gln Leu Asn Ala Thr Val Thr Leu Ala Ile Ile Thr 340 345 350
- Val Thr Pro Lys Ser Phe Gly Ser Pro Gly Ser Leu Gly Lys Leu Leu 355 360 365
- Cys Glu Val Thr Pro Val Ser Gly Gln Glu Arg Phe Val Trp Ser Ser 370 375 380
- Leu Asp Thr Pro Ser Gln Arg Ser Phe Ser Gly Pro Trp Leu Glu Ala 385 390 395 400
- Gln Glu Ala Gln Leu Leu Ser Gln Pro Trp Gln Cys Gln Leu Tyr Gln 405 410 415
- Gly Glu Arg Leu Leu Gly Ala Ala Val Tyr Phe Thr Glu Leu Ser Ser 420 425 430
- Pro Gly Ala Gln Arg Ser Gly Arg Ala Pro Gly Ala Leu Pro Ala Gly 435 440 445
- His Leu Leu Leu Phe Leu Thr Leu Gly Val Leu Ser Leu Leu Leu 450 455 460
- Val Thr Gly Ala Phe Gly Phe His Leu Trp Arg Arg Gln Trp Arg Pro 465 470 475 480
- Arg Arg Phe Ser Ala Leu Glu Gln Gly Ile His Pro Pro Gln Ala Gln 485 490 495
- Ser Lys Ile Glu Glu Leu Glu Gln Glu Pro Glu Pro Glu Pro Glu Pro 500 505 510
- Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Gln Leu
 515 520 525

<210> 2418

<211> 738 <212> PRT

<213> Homo sapiens

<400> 2418

Met Gln Pro Arg Trp Ala Gln Gly Ala Thr Met Trp Leu Gly Val Leu 10 5

Leu Thr Leu Leu Cys Ser Ser Leu Glu Gly Gln Glu Asn Ser Phe

Thr Ile Asn Ser Val Asp Met Lys Ser Leu Pro Asp Trp Thr Val Gln 40 45

Asn Gly Lys Asn Leu Thr Leu Gln Cys Phe Ala Asp Val Ser Thr Thr

Ser His Val Lys Pro Gln His Gln Met Leu Phe Tyr Lys Asp Asp Val 75 70

Leu Phe Tyr Asn Ile Ser Ser Met Lys Ser Thr Glu Ser Tyr Phe Ile 90

Pro Glu Val Arg Ile Tyr Asp Ser Gly Thr Tyr Lys Cys Thr Val Ile

Val Asn Asn Lys Glu Lys Thr Thr Ala Glu Tyr Gln Val Leu Val Glu 120

Gly Val Pro Ser Pro Arg Val Thr Leu Asp Lys Lys Glu Ala Ile Gln 135

Gly Gly Ile Val Arg Val Asn Cys Ser Val Pro Glu Glu Lys Ala Pro 150

Ile His Phe Thr Ile Glu Lys Leu Glu Leu Asn Glu Lys Met Val Lys 165 170

Leu Lys Arg Glu Lys Asn Ser Arg Asp Gln Asn Phe Val Ile Leu Glu 180 185

Phe Pro Val Glu Glu Gln Asp Arg Val Leu Ser Phe Arg Cys Gln Ala 200

Arg Ile Ile Ser Gly Ile His Met Gln Thr Ser Glu Ser Thr Lys Ser 210 215 220

Glu 225	Leu	Val	Thr	Val	Thr 230	Glu	Ser	Phe	Ser	Thr 235	Pro	Lys	Phe	His	11e 240
Ser	Pro	Thr	Gly	Met 245	Ile	Met	Glu	Gly	Ala 250	Gln	Leu	His	Ile	Lys 255	Cys
Thr	Ile	Gln	Val 260	Thr	His	Leu	Ala	Gln 265	Glu	Phe	Pro	Glu	Ile 270	Ile	Ile
Gln	Lys	Asp 275	Lys	Ala	Ile	Val	Ala 280	His	Asn	Arg	His	Gly 285	Asn	Lys	Ala
Val	Tyr 290	Ser	Val	Met	Ala	Met 295	Val	Glu	His	Ser	Gly 300	Asn	Tyr	Thr	Cys
Lys 305	Val	Glu	Ser	Ser	Arg 310	Ile	Ser	Lys	Val	Ser 315	Ser	Ile	Val	Val	Asn 320
Ile	Thr	Glu	Leu	Phe 325	Ser	Lys	Pro	Glu	Leu 330	Glu	Ser	Ser	Phe	Thr 335	His
Leu	Asp	Gln	Gly 340	Glu	Arg	Leu	Asn	Leu 345	Ser	Суз	Ser	Ile	Pro 350	Gly	Ala
Pro	Pro	Ala 355	Asn	Phe	Thr	Ile	Gln 360	Lys	Glu	Asp	Thr	Ile 365	Val	Ser	Gln
Thr	Gln 370	Asp	Phe	Thr	Lys	Ile 375	Ala	Ser	Lys	Ser	Asp 380		Gly	Thr	Tyr
Ile 385	Cys	Thr	Ala	Gly	Ile 390	Asp	Lys	Val	Val	Lys 395		Ser	Asn	Thr	Val 400
				405					410					415	
			420		Ile			425					430		
		435			Leu		440					445			
Lys	Val 450		Glu	Asn	Ser	Thr 455		Asn	Ser	Asn	Asp 460		Ala	Val	Phe

Lys Asp Asn Pro Thr Glu Asp Val Glu Tyr Gln Cys Val Ala Asp Asn 465 470 475 480

- Cys His Ser His Ala Lys Met Leu Ser Glu Val Leu Arg Val Lys Val
 485 490 495
- Ile Ala Pro Val Asp Glu Val Gln Ile Ser Ile Leu Ser Ser Lys Val 500 505 510
- Val Glu Ser Gly Glu Asp Ile Val Leu Gln Cys Ala Val Asn Glu Gly 515 520 525
- Ser Gly Pro Ile Thr Tyr Lys Phe Tyr Arg Glu Lys Glu Gly Lys Pro 530 535 540
- Phe Tyr Gln Met Thr Ser Asn Ala Thr Gln Ala Phe Trp Thr Lys Gln 545 550 555 560
- Lys Ala Asn Lys Glu Gln Glu Gly Glu Tyr Tyr Cys Thr Ala Phe Asn 565 570 575
- Arg Ala Asn His Ala Ser Ser Val Pro Arg Ser Lys Ile Leu Thr Val
- Arg Val Ile Leu Ala Pro Trp Lys Lys Gly Leu Ile Ala Val Val Ile 595 600 605
- Ile Gly Val Ile Ile Ala Leu Leu Ile Ile Ala Ala Lys Cys Tyr Phe 610 615 620
- Leu Arg Lys Ala Lys Gln Met Pro Val Glu Met Ser Arg Pro 625 630 635 640
- Ala Val Pro Leu Asn Ser Asn Asn Glu Lys Met Ser Asp Pro Asn 645 650 655
- Met Glu Ala Asn Ser His Tyr Gly His Asn Asp Asp Val Gly Asn His 660 665 670
- Ala Met Lys Pro Ile Asn Asp Asn Lys Glu Pro Leu Asn Ser Asp Val 675 680 685
- Gln Tyr Thr Glu Val Gln Val Ser Ser Ala Glu Ser His Lys Asp Leu 690 695 700

Gly Lys Lys Asp Thr Glu Thr Val Tyr Ser Glu Val Arg Lys Ala Val 705 710 715 720

Pro Asp Ala Val Glu Ser Arg Tyr Ser Arg Thr Glu Gly Ser Leu Asp 725 730 735

Gly Thr

<210> 2419

<211> 328

<212> PRT

<213> Homo sapiens

<400> 2419

Met Leu Val Arg Arg Gly Ala Arg Ala Gly Pro Arg Met Pro Arg Gly
1 5 10 15

Trp Thr Ala Leu Cys Leu Leu Ser Leu Leu Pro Ser Gly Phe Met Ser 20 25 30

Leu Asp Asn Asn Gly Thr Ala Thr Pro Glu Leu Pro Thr Gln Gly Thr 35 40 45

Phe Ser Asn Val Ser Thr Asn Val Ser Tyr Gln Glu Thr Thr Pro 50 55 60

Ser Thr Leu Gly Ser Thr Ser Leu His Pro Val Ser Gln His Gly Asn 70 75 80

Glu Ala Thr Thr Asn Ile Thr Glu Thr Thr Val Lys Phe Thr Ser Thr 85 90 95

Ser Val Ile Thr Ser Val Tyr Gly Asn Thr Asn Ser Ser Val Gln Ser 100 105 110

Gln Thr Ser Val Ile Ser Thr Val Phe Thr Thr Pro Ala Asn Val Ser 115 120 125

Thr Pro Glu Thr Thr Leu Lys Pro Ser Leu Ser Pro Gly Asn Val Ser 130 135 140

Asp Leu Ser Thr Thr Ser Thr Ser Leu Ala Thr Ser Pro Thr Lys Pro 145 150 155 160

Tyr Thr Ser Ser Pro Ile Leu Ser Asp Ile Lys Ala Glu Ile Lys 165 170 175

Cys Ser Gly Ile Arg Glu Val Lys Leu Thr Gln Gly Ile Cys Leu Glu 180 185 190

- Gln Asn Lys Thr Ser Ser Cys Ala Glu Phe Lys Lys Asp Arg Gly Glu
 195 200 205
- Gly Leu Ala Arg Val Leu Cys Gly Glu Glu Gln Ala Asp Ala Asp Ala 210 215 220
- Gly Ala Gln Val Cys Ser Leu Leu Leu Ala Gln Ser Glu Val Arg Pro 225 230 235 240
- Gln Cys Leu Leu Val Leu Ala Asn Arg Thr Glu Ile Ser Ser Lys
 245 250 255
- Leu Gln Leu Met Lys Lys His Gln Ser Asp Leu Lys Lys Leu Gly Ile
 260 265 270
- Leu Asp Phe Thr Glu Gln Asp Val Ala Ser His Gln Ser Tyr Ser Gln 275 280 285
- Lys Thr Leu Ile Ala Leu Val Thr Ser Gly Ala Leu Leu Ala Val Leu 290 295 300
- Gly Ile Thr Gly Tyr Phe Leu Met Asn Arg Arg Ser Trp Ser Pro Thr 305 310 315 320

Gly Glu Arg Leu Glu Leu Glu Pro 325

<210> 2420

<211> 374

<212> PRT

<213> Homo sapiens

<400> 2420

- Met Trp Phe Leu Thr Thr Leu Leu Leu Trp Val Pro Val Asp Gly Gln 1 5 10 15
- Val Asp Thr Thr Lys Ala Val Ile Thr Leu Gln Pro Pro Trp Val Ser 20 25 30
- Val Phe Gln Glu Glu Thr Val Thr Leu His Cys Glu Val Leu His Leu 35 40 45

Pro Gly Ser Ser Ser Thr Gln Trp Phe Leu Asn Gly Thr Ala Thr Gln 50 55 60

- Thr Ser Thr Pro Ser Tyr Arg Ile Thr Ser Ala Ser Val Asn Asp Ser 70 75 80
- Gly Glu Tyr Arg Cys Gln Arg Gly Leu Ser Gly Arg Ser Asp Pro Ile 85 90 95
- Gln Leu Glu Ile His Arg Gly Trp Leu Leu Leu Gln Val Ser Ser Arg 100 105 110
- Val Phe Thr Glu Gly Glu Pro Leu Ala Leu Arg Cys His Ala Trp Lys
 115 120 125
- Asp Lys Leu Val Tyr Asn Val Leu Tyr Tyr Arg Asn Gly Lys Ala Phe 130 135 140
- Lys Phe Phe His Trp Asn Ser Asn Leu Thr Ile Leu Lys Thr Asn Ile 145 150 155 160
- Ser His Asn Gly Thr Tyr His Cys Ser Gly Met Gly Lys His Arg Tyr 165 170 175
- Thr Ser Ala Gly Ile Ser Val Thr Val Lys Glu Leu Phe Pro Ala Pro 180 185 190
- Val Leu Asn Ala Ser Val Thr Ser Pro Leu Leu Glu Gly Asn Leu Val
- Thr Leu Ser Cys Glu Thr Lys Leu Leu Gln Arg Pro Gly Leu Gln 210 220
- Leu Tyr Phe Ser Phe Tyr Met Gly Ser Lys Thr Leu Arg Gly Arg Asn 235 240
- Thr Ser Ser Glu Tyr Gln Ile Leu Thr Ala Arg Arg Glu Asp Ser Gly 245 250 255
- Leu Tyr Trp Cys Glu Ala Ala Thr Glu Asp Gly Asn Val Leu Lys Arg 260 265 270
- Ser Pro Glu Leu Glu Leu Gln Val Leu Gly Leu Gln Leu Pro Thr Pro 275 280 285
- Val Trp Phe His Val Leu Phe Tyr Leu Ala Val Gly Ile Met Phe Leu

290 295 300

Val Asn Thr Val Leu Trp Val Thr Ile Arg Lys Glu Leu Lys Arg Lys 305 310 315 320

Lys Lys Trp Asp Leu Glu Ile Ser Leu Asp Ser Gly His Glu Lys Lys 325 330 335

Val Ile Ser Ser Leu Gln Glu Asp Arg His Leu Glu Glu Glu Leu Lys 340 345 350

Cys Gln Glu Gln Lys Glu Glu Gln Leu Gln Glu Gly Val His Arg Lys 355 360 365

Glu Pro Gln Gly Ala Thr 370

<210> 2421

<211> 760

<212> PRT

<213> Homo sapiens

<400> 2421

Met Met Asp Gln Ala Arg Ser Ala Phe Ser Asn Leu Phe Gly Glu 1 5 10 15

Pro Leu Ser Tyr Thr Arg Phe Ser Leu Ala Arg Gln Val Asp Gly Asp 20 25 30

Asn Ser His Val Glu Met Lys Leu Ala Val Asp Glu Glu Glu Asn Ala 35 40 45

Asp Asn Asn Thr Lys Ala Asn Val Thr Lys Pro Lys Arg Cys Ser Gly
50 60

Ser Ile Cys Tyr Gly Thr Ile Ala Val Ile Val Phe Phe Leu Ile Gly 65 70 75 80

Phe Met Ile Gly Tyr Leu Gly Tyr Cys Lys Gly Val Glu Pro Lys Thr 85 90 95

Glu Cys Glu Arg Leu Ala Gly Thr Glu Ser Pro Val Arg Glu Glu Pro 100 105 110

Gly Glu Asp Phe Pro Ala Ala Arg Arg Leu Tyr Trp Asp Asp Leu Lys 115 120 125 Arg Lys Leu Ser Glu Lys Leu Asp Ser Thr Asp Phe Thr Ser Thr Ile 130 135 140

- Lys Leu Leu Asn Glu Asn Ser Tyr Val Pro Arg Glu Ala Gly Ser Gln 145 150 155 160
- Lys Asp Glu Asn Leu Ala Leu Tyr Val Glu Asn Gln Phe Arg Glu Phe 165 170 175
- Lys Leu Ser Lys Val Trp Arg Asp Gln His Phe Val Lys Ile Gln Val 180 185 190
- Lys Asp Ser Ala Gln Asn Ser Val Ile Ile Val Asp Lys Asn Gly Arg
 195 200 205
- Leu Val Tyr Leu Val Glu Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys 210 215 220
- Ala Ala Thr Val Thr Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys 225 230 235 240
- Lys Asp Phe Glu Asp Leu Tyr Thr Pro Val Asn Gly Ser Ile Val Ile
 245 250 255
- Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu 260 265 270
- Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe 275 280 285
- Pro Ile Val Asn Ala Glu Leu Ser Phe Phe Gly His Ala His Leu Gly 290 295 300
- Thr Gly Asp Pro Tyr Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln 305 310 315 320
- Phe Pro Pro Ser Arg Ser Ser Gly Leu Pro Asn Ile Pro Val Gln Thr 325 330 335
- Ile Ser Arg Ala Ala Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp 340 345 350
- Cys Pro Ser Asp Trp Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser 355 360 365

Glu Ser Lys Asn Val Lys Leu Thr Val Ser Asn Val Leu Lys Glu Ile 370 375 380

- Lys Ile Leu Asn Ile Phe Gly Val Ile Lys Gly Phe Val Glu Pro Asp 385 390 395 400
- His Tyr Val Val Gly Ala Gln Arg Asp Ala Trp Gly Pro Gly Ala
 405 410 415
- Ala Lys Ser Gly Val Gly Thr Ala Leu Leu Leu Lys Leu Ala Gln Met
 420 425 430
- Phe Ser Asp Met Val Leu Lys Asp Gly Phe Gln Pro Ser Arg Ser Ile 435 440 445
- Ile Phe Ala Ser Trp Ser Ala Gly Asp Phe Gly Ser Val Gly Ala Thr 450 455 . 460
- Glu Trp Leu Glu Gly Tyr Leu Ser Ser Leu His Leu Lys Ala Phe Thr 465 470 475 480
- Tyr Ile Asn Leu Asp Lys Ala Val Leu Gly Thr Ser Asn Phe Lys Val 485 490 495
- Ser Ala Ser Pro Leu Leu Tyr Thr Leu Ile Glu Lys Thr Met Gln Asn 500 505 510
- Val Lys His Pro Val Thr Gly Gln Phe Leu Tyr Gln Asp Ser Asn Trp 515 520 525
- Ala Ser Lys Val Glu Lys Leu Thr Leu Asp Asn Ala Ala Phe Pro Phe 530 535 540
- Leu Ala Tyr Ser Gly Ile Pro Ala Val Ser Phe Cys Phe Cys Glu Asp 545 550 555 560
- Thr Asp Tyr Pro Tyr Leu Gly Thr Thr Met Asp Thr Tyr Lys Glu Leu 565 570 575
- Ile Glu Arg Ile Pro Glu Leu Asn Lys Val Ala Arg Ala Ala Glu
 580 585 590
- Val Ala Gly Gln Phe Val Ile Lys Leu Thr His Asp Val Glu Leu Asn 595 600 605
- Leu Asp Tyr Glu Arg Tyr Asn Ser Gln Leu Leu Ser Phe Val Arg Asp

610 615 620

Leu Asn Gln Tyr Arg Ala Asp Ile Lys Glu Met Gly Leu Ser Leu Gln 625 630 635 640

Trp Leu Tyr Ser Ala Arg Gly Asp Phe Phe Arg Ala Thr Ser Arg Leu 645 650 655

Thr Thr Asp Phe Gly Asn Ala Glu Lys Thr Asp Arg Phe Val Met Lys
660 665 670

Lys Leu Asn Asp Arg Val Met Arg Val Glu Tyr His Phe Leu Ser Pro 675 680 685

Tyr Val Ser Pro Lys Glu Ser Pro Phe Arg His Val Phe Trp Gly Ser 690 695 700

Gly Ser His Thr Leu Pro Ala Leu Leu Glu Asn Leu Lys Leu Arg Lys 705 710 715 720

Gln Asn Asn Gly Ala Phe Asn Glu Thr Leu Phe Arg Asn Gln Leu Ala 725 730 735

Leu Ala Thr Trp Thr Ile Gln Gly Ala Ala Asn Ala Leu Ser Gly Asp
740 745 750

Val Trp Asp Ile Asp Asn Glu Phe 755 760

<210> 2422

<211> 247

<212> PRT

<213> Homo sapiens

<400> 2422

Met Leu Leu Pro Leu Pro Leu Leu Leu Phe Leu Leu Cys Ser Arg
1 5 10 15

Ala Glu Ala Gly Glu Ile Ile Gly Gly Thr Glu Cys Lys Pro His Ser 20 25 30

Arg Pro Tyr Met Ala Tyr Leu Glu Ile Val Thr Ser Asn Gly Pro Ser 35 40 45

Lys Phe Cys Gly Gly Phe Leu Ile Arg Arg Asn Phe Val Leu Thr Ala 50 55 60

Ala His Cys Ala Gly Arg Ser Ile Thr Val Thr Leu Gly Ala His Asn 70

Ile Thr Glu Glu Glu Asp Thr Trp Gln Lys Leu Glu Val Ile Lys Gln 90 85

Phe Arg His Pro Lys Tyr Asn Thr Ser Thr Leu His His Asp Ile Met

Leu Leu Lys Leu Lys Glu Lys Ala Ser Leu Thr Leu Ala Val Gly Thr 120

Leu Pro Phe Pro Ser Gln Phe Asn Phe Val Pro Pro Gly Arg Met Cys

Arg Val Ala Gly Trp Gly Arg Thr Gly Val Leu Lys Pro Gly Ser Asp 150

Thr Leu Gln Glu Val Lys Leu Arg Leu Met Asp Pro Gln Ala Cys Ser

His Phe Arg Asp Phe Asp His Asn Leu Gln Leu Cys Val Gly Asn Pro

Arg Lys Thr Lys Ser Ala Phe Lys Gly Asp Ser Gly Gly Pro Leu Leu 200

Cys Ala Gly Val Ala Gln Gly Ile Val Ser Tyr Gly Arg Ser Asp Ala 215

Lys Pro Pro Ala Val Phe Thr Arg Ile Ser His Tyr Arg Pro Trp Ile 230 235

Asn Gln Ile Leu Gln Ala Asn 245

<210> 2423

<211> 976 <212> PRT <213> Homo sapiens

<400> 2423

Met Arg Gly Ala Arg Gly Ala Trp Asp Phe Leu Cys Val Leu Leu Leu 15 5 10

Leu Leu Arg Val Gln Thr Gly Ser Ser Gln Pro Ser Val Ser Pro Gly

30

20

Glu Pro Ser Pro Pro Ser Ile His Pro Gly Lys Ser Asp Leu Ile Val 35 40 45

25

Arg Val Gly Asp Glu Ile Arg Leu Leu Cys Thr Asp Pro Gly Phe Val 50 55 60

Lys Trp Thr Phe Glu Ile Leu Asp Glu Thr Asn Glu Asn Lys Gln Asn 65 70 75 80

Glu Trp Ile Thr Glu Lys Ala Glu Ala Thr Asn Thr Gly Lys Tyr Thr 85 90 95

Cys Thr Asn Lys His Gly Leu Ser Asn Ser Ile Tyr Val Phe Val Arg

Asp Pro Ala Lys Leu Phe Leu Val Asp Arg Ser Leu Tyr Gly Lys Glu 115 120 125

Asp Asn Asp Thr Leu Val Arg Cys Pro Leu Thr Asp Pro Glu Val Thr 130 140

Asn Tyr Ser Leu Lys Gly Cys Gln Gly Lys Pro Leu Pro Lys Asp Leu 145 150 155 160

Arg Phe Ile Pro Asp Pro Lys Ala Gly Ile Met Ile Lys Ser Val Lys 165 170 175

Arg Ala Tyr His Arg Leu Cys Leu His Cys Ser Val Asp Gln Glu Gly 180 185 190

Lys Ser Val Leu Ser Glu Lys Phe Ile Leu Lys Val Arg Pro Ala Phe 195 200 205

Lys Ala Val Pro Val Val Ser Val Ser Lys Ala Ser Tyr Leu Leu Arg 210 215 220

Glu Gly Glu Glu Phe Thr Val Thr Cys Thr Ile Lys Asp Val Ser Ser 225 230 235 240

Ser Val Tyr Ser Thr Trp Lys Arg Glu Asn Ser Gln Thr Lys Leu Gln
245 250 255

Glu Lys Tyr Asn Ser Trp His His Gly Asp Phe Asn Tyr Glu Arg Gln 260 265 270

Ala Thr Leu Thr Ile Ser Ser Ala Arg Val Asn Asp Ser Gly Val Phe 275 280 285

- Met Cys Tyr Ala Asn Asn Thr Phe Gly Ser Ala Asn Val Thr Thr Thr 290 295 300
- Leu Glu Val Val Asp Lys Gly Phe Ile Asn Ile Phe Pro Met Ile Asn 305 310 315 320
- Thr Thr Val Phe Val Asn Asp Gly Glu Asn Val Asp Leu Ile Val Glu 325 330 335
- Tyr Glu Ala Phe Pro Lys Pro Glu His Gln Gln Trp Ile Tyr Met Asn 340 345 350
- Arg Thr Phe Thr Asp Lys Trp Glu Asp Tyr Pro Lys Ser Glu Asn Glu 355 360 365
- Ser Asn Ile Arg Tyr Val Ser Glu Leu His Leu Thr Arg Leu Lys Gly 370 375 380
- Thr Glu Gly Gly Thr Tyr Thr Phe Leu Val Ser Asn Ser Asp Val Asn 385 390 395 400
- Ala Ala Ile Ala Phe Asn Val Tyr Val Asn Thr Lys Pro Glu Ile Leu 405 410 415
- Thr Tyr Asp Arg Leu Val Asn Gly Met Leu Gln Cys Val Ala Ala Gly
 420 425 430
- Phe Pro Glu Pro Thr Ile Asp Trp Tyr Phe Cys Pro Gly Thr Glu Gln 435 440 445
- Arg Cys Ser Ala Ser Val Leu Pro Val Asp Val Gln Thr Leu Asn Ser 450 460
- Ser Gly Pro Pro Phe Gly Lys Leu Val Val Gln Ser Ser Ile Asp Ser 465 470 480
- Ser Ala Phe Lys His Asn Gly Thr Val Glu Cys Lys Ala Tyr Asn Asp 485 490 495
- Val Gly Lys Thr Ser Ala Tyr Phe Asn Phe Ala Phe Lys Gly Asn Asn 500 505 510

Lys Glu Gln Ile His Pro His Thr Leu Phe Thr Pro Leu Leu Ile Gly
515 520 525

- Phe Val Ile Val Ala Gly Met Met Cys Ile Ile Val Met Ile Leu Thr 530 535 540
- Tyr Lys Tyr Leu Gln Lys Pro Met Tyr Glu Val Gln Trp Lys Val Val 545 550 555 560
- Glu Glu Ile Asn Gly Asn Asn Tyr Val Tyr Ile Asp Pro Thr Gln Leu 565 570 575
- Pro Tyr Asp His Lys Trp Glu Phe Pro Arg Asn Arg Leu Ser Phe Gly 580 585 590
- Lys Thr Leu Gly Ala Gly Ala Phe Gly Lys Val Val Glu Ala Thr Ala 595 600 605
- Tyr Gly Leu Ile Lys Ser Asp Ala Ala Met Thr Val Ala Val Lys Met 610 615 620
- Leu Lys Pro Ser Ala His Leu Thr Glu Arg Glu Ala Leu Met Ser Glu 625 630 635 640
- Leu Lys Val Leu Ser Tyr Leu Gly Asn His Met Asn Ile Val Asn Leu 645 650 655
- Leu Gly Ala Cys Thr Ile Gly Gly Pro Thr Leu Val Ile Thr Glu Tyr
 660 665 670
- Cys Cys Tyr Gly Asp Leu Leu Asn Phe Leu Arg Arg Lys Arg Asp Ser 675 680 685
- Phe Ile Cys Ser Lys Gln Glu Asp His Ala Glu Ala Ala Leu Tyr Lys 690 695 700
- Asn Leu Leu His Ser Lys Glu Ser Ser Cys Ser Asp Ser Thr Asn Glu 705 710 715 720
- Tyr Met Asp Met Lys Pro Gly Val Ser Tyr Val Val Pro Thr Lys Ala
 725 730 735
- Asp Lys Arg Arg Ser Val Arg Ile Gly Ser Tyr Ile Glu Arg Asp Val 740 745 750

Thr Pro Ala Ile Met Glu Asp Asp Glu Leu Ala Leu Asp Leu Glu Asp 755 760 765

Leu Leu Ser Phe Ser Tyr Gln Val Ala Lys Gly Met Ala Phe Leu Ala 770 780

Ser Lys Asn Cys Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Leu 785 790 795 800

Thr His Gly Arg Ile Thr Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp 805 810 815

Ile Lys Asn Asp Ser Asn Tyr Val Val Lys Gly Asn Ala Arg Leu Pro 820 825 830

Val Lys Trp Met Ala Pro Glu Ser Ile Phe Asn Cys Val Tyr Thr Phe 835 840 845

Glu Ser Asp Val Trp Ser Tyr Gly Ile Phe Leu Trp Glu Leu Phe Ser 850 855 860

Leu Gly Ser Ser Pro Tyr Pro Gly Met Pro Val Asp Ser Lys Phe Tyr 865 870 875 880

Lys Met Ile Lys Glu Gly Phe Arg Met Leu Ser Pro Glu His Ala Pro 885 890 895

Ala Glu Met Tyr Asp Ile Met Lys Thr Cys Trp Asp Ala Asp Pro Leu 900 905 910

Lys Arg Pro Thr Phe Lys Gln Ile Val Gln Leu Ile Glu Lys Gln Ile 915 920 925

Ser Glu Ser Thr Asn His Ile Tyr Ser Asn Leu Ala Asn Cys Ser Pro 930 935 940

Asn Arg Gln Lys Pro Val Val Asp His Ser Val Arg Ile Asn Ser Val 945 950 955 960

Gly Ser Thr Ala Ser Ser Ser Gln Pro Leu Leu Val His Asp Asp Val 965 970 975

<210> 2424

<211> 635

<212> PRT

<213> Homo sapiens

<400> 2424

Met Pro Ser Trp Ala Leu Phe Met Val Thr Ser Cys Leu Leu Leu Ala 1 5 10 15

Pro Gln Asn Leu Ala Gln Val Ser Ser Gln Asp Val Ser Leu Leu Ala 20 25 30

Ser Asp Ser Glu Pro Leu Lys Cys Phe Ser Arg Thr Phe Glu Asp Leu 35 40 45

Thr Cys Phe Trp Asp Glu Glu Glu Ala Ala Pro Ser Gly Thr Tyr Gln 50 55 60

Leu Leu Tyr Ala Tyr Pro Arg Glu Lys Pro Arg Ala Cys Pro Leu Ser 70 75 80

Ser Gln Ser Met Pro His Phe Gly Thr Arg Tyr Val Cys Gln Phe Pro 85 90 95

Asp Gln Glu Glu Val Arg Leu Phe Phe Pro Leu His Leu Trp Val Lys
100 105 110

Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu Phe Val Asp 115 120 125

Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala Met Gly Gly 130 135 140

Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro Ala Pro Glu 145 150 155 160

Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro Arg Asp Pro 165 170 175

Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala Thr Glu Thr 180 185 190

Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala Leu Asp Gln
195 200 205

Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly Pro Lys Gln 210 215 220

Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu Gly Gly Ser 225 230 235 240

Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp Leu Gln Leu 245 250 255

- Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp Gly Ser Trp 260 265 270
- Ser Leu Pro Val Thr Val Asp Leu Pro Gly Asp Ala Val Ala Leu Gly 275 280 285
- Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys Gln Trp Gln 290 295 300
- Gln Gln Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His Ser Arg Ala 305 310 315 320
- Arg Cys Cys Pro Arg Asp Arg Tyr Pro Ile Trp Glu Asn Cys Glu Glu 325 330 335
- Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys 340 345 350
- His Phe Lys Ser Arg Asn Asp Ser Ile Ile His Ile Leu Val Glu Val 355 360 365
- Thr Thr Ala Pro Gly Thr Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 380
- Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 390 395 400
- Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp 405 410 415
- Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His
 420 425 430
- Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445
- Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460
- Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480

Thr Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495

Ala Leu His Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu 500 505 510

Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525

Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg 530 540

Asp Thr Ala Ala Leu Ser Pro Pro Lys Ala Thr Val Ser Asp Thr Cys 545 550 555 560

Glu Glu Val Glu Pro Ser Leu Leu Glu Ile Leu Pro Lys Ser Ser Glu 565 570 575

Arg Thr Pro Leu Pro Leu Cys Ser Ser Gln Ala Gln Met Asp Tyr Arg 580 585 590

Arg Leu Gln Pro Ser Cys Leu Gly Thr Met Pro Leu Ser Val Cys Pro 595 600 605

Pro Met Ala Glu Ser Gly Ser Cys Cys Thr Thr His Ile Ala Asn His 610 615 620

Ser Tyr Leu Pro Leu Ser Tyr Trp Gln Gln Pro 625 630 635

<210> 2425

<211> 1006

<212> PRT

<213> Homo sapiens

<400> 2425

Met Val Cys Ser Leu Trp Val Leu Leu Leu Val Ser Ser Val Leu Ala 1 5 10 15

Leu Glu Glu Val Leu Leu Asp Thr Thr Gly Glu Thr Ser Glu Ile Gly
20 25 30

Trp Leu Thr Tyr Pro Pro Gly Gly Trp Asp Glu Val Ser Val Leu Asp
35 40 45

Asp Gln Arg Arg Leu Thr Arg Thr Phe Glu Ala Cys His Val Ala Gly 50 55 60

726

Ala Pro Pro Gly Thr Gly Gln Asp Asn Trp Leu Gln Thr His Phe Val 65 70 75 80

- Glu Arg Arg Gly Ala Gln Arg Ala His Ile Arg Leu His Phe Ser Val 85 90 95
- Arg Ala Cys Ser Ser Leu Gly Val Ser Gly Gly Thr Cys Arg Glu Thr
- Phe Thr Leu Tyr Tyr Arg Gln Ala Glu Glu Pro Asp Ser Pro Asp Ser 115 120 125
- Val Ser Ser Trp His Leu Lys Arg Trp Thr Lys Val Asp Thr Ile Ala 130 135 140
- Ser Ala Ala Trp Ala Val Gly Pro His Gly Ala Gly Gln Arg Ala Gly 165 170 175
- Leu Gln Leu Asn Val Lys Glu Arg Ser Phe Gly Pro Leu Thr Gln Arg 180 185 190
- Gly Phe Tyr Val Ala Phe Gln Asp Thr Gly Ala Cys Leu Ala Leu Val 195 200 205
- Ala Val Arg Leu Phe Ser Tyr Thr Cys Pro Ala Val Leu Arg Ser Phe 210 215 220
- Ala Ser Phe Pro Glu Thr Gln Ala Ser Gly Ala Gly Gly Ala Ser Leu 225 230 235 240
- Val Ala Ala Val Gly Thr Cys Val Ala His Ala Glu Pro Glu Glu Asp 245 250 255
- Gly Val Gly Gln Ala Gly Gly Ser Pro Pro Arg Leu His Cys Asn 260 265 270
- Gly Glu Gly Lys Trp Met Val Ala Val Gly Gly Cys Arg Cys Gln Pro 275 280 285
- Gly Tyr Gln Pro Ala Arg Gly Asp Lys Ala Cys Gln Ala Cys Pro Arg 290 295 300

Gly Leu Tyr Lys Ser Ser Ala Gly Asn Ala Pro Cys Ser Pro Cys Pro 305 310 315 320

- Ala Arg Ser His Ala Pro Asn Pro Ala Ala Pro Val Cys Pro Cys Leu 325 330 335
- Glu Gly Phe Tyr Arg Ala Ser Ser Asp Pro Pro Glu Ala Pro Cys Thr 340 345 350
- Gly Pro Pro Ser Ala Pro Gln Glu Leu Trp Phe Glu Val Gln Gly Ser 355 360 365
- Ala Leu Met Leu His Trp Arg Leu Pro Arg Glu Leu Gly Gly Arg Gly 370 380
- Asp Leu Leu Phe Asn Val Val Cys Lys Glu Cys Glu Gly Arg Gln Glu 385 390 395 400
- Pro Ala Ser Gly Gly Gly Thr Cys His Arg Cys Arg Asp Glu Val 405 410 415
- His Phe Asp Pro Arg Gln Arg Gly Leu Thr Glu Ser Arg Val Leu Val
 420 425 430
- Gly Gly Leu Arg Ala His Val Pro Tyr Ile Leu Glu Val Gln Ala Val
 435 440 445
- Asn Gly Val Ser Glu Leu Ser Pro Asp Pro Pro Gln Ala Ala Ile 450 455 460
- Asn Val Ser Thr Ser His Glu Val Pro Ser Ala Val Pro Val Val His 465 470 475 480
- Gln Val Ser Arg Ala Ser Asn Ser Ile Thr Val Ser Trp Pro Gln Pro 485 490 495
- Asp Gln Thr Asn Gly Asn Ile Leu Asp Tyr Gln Leu Arg Tyr Tyr Asp 500 505 510
- Gln Ala Glu Asp Glu Ser His Ser Phe Thr Leu Thr Ser Glu Thr Asn 515 520 525
- Thr Ala Thr Val Thr Gln Leu Ser Pro Gly His Ile Tyr Gly Phe Gln 530 540

Val Arg Ala Arg Thr Ala Ala Gly His Gly Pro Tyr Gly Gly Lys Val 545 550 555 560

Tyr Phe Gln Thr Leu Pro Gln Gly Glu Leu Ser Ser Gln Leu Pro Glu 565 570 575

Arg Leu Ser Leu Val Ile Gly Ser Ile Leu Gly Ala Leu Ala Phe Leu 580 585 590

Leu Leu Ala Ala Ile Thr Val Leu Ala Val Val Phe Gln Arg Lys Arg 595 600 605

Arg Gly Thr Gly Tyr Thr Glu Gln Leu Gln Gln Tyr Ser Ser Pro Gly 610 615 620

Leu Gly Val Lys Tyr Tyr Ile Asp Pro Ser Thr Tyr Glu Asp Pro Cys 625 630 635 640

Gln Ala Ile Arg Glu Leu Ala Arg Glu Val Asp Pro Ala Tyr Ile Lys 645 650 655

Ile Glu Glu Val Ile Gly Thr Gly Ser Phe Gly Glu Val Arg Gln Gly 660 665 670

Arg Leu Gln Pro Arg Gly Arg Arg Glu Gln Thr Val Ala Ile Gln Ala 675 680 685

Leu Trp Ala Gly Gly Ala Glu Ser Leu Gln Met Thr Phe Leu Gly Arg
690 695 700

Ala Ala Val Leu Gly Gln Phe Gln His Pro Asn Ile Leu Arg Leu Glu 705 710 715 720

Gly Val Val Thr Lys Ser Arg Pro Leu Met Val Leu Thr Glu Phe Met 725 730 735

Glu Leu Gly Pro Leu Asp Ser Phe Leu Arg Gln Arg Glu Gly Gln Phe
740 745 750

Ser Ser Leu Gln Leu Val Ala Met Gln Arg Gly Val Ala Ala Ala Met 755 760 765

Gln Tyr Leu Ser Ser Phe Ala Phe Val His Arg Ser Leu Ser Ala His 770 780

Ser Val Leu Val Asn Ser His Leu Val Cys Lys Val Ala Arg Leu Gly

785

790

795

800

His Ser Pro Gln Gly Pro Ser Cys Leu Leu Arg Trp Ala Ala Pro Glu 805 810 815

Val Ile Ala His Gly Lys His Thr Thr Ser Ser Asp Val Trp Ser Phe 820 825 830

Gly Ile Leu Met Trp Glu Val Met Ser Tyr Gly Glu Arg Pro Tyr Trp 835 840 845

Asp Met Ser Glu Gln Glu Val Leu Asn Ala Ile Glu Gln Glu Phe Arg 850 855 860

Leu Pro Pro Pro Pro Gly Cys Pro Pro Gly Leu His Leu Leu Met Leu 865 870 875 880

Asp Thr Trp Gln Lys Asp Arg Ala Arg Arg Pro His Phe Asp Gln Leu 885 890 895

Val Ala Ala Phe Asp Lys Met Ile Arg Lys Pro Asp Thr Leu Gln Ala 900 905 910

Gly Gly Asp Pro Gly Glu Arg Pro Ser Gln Ala Leu Leu Thr Pro Val 915 920 925

Ala Leu Asp Phe Pro Cys Leu Asp Ser Pro Gln Ala Trp Leu Ser Ala 930 935 940

Ile Gly Leu Glu Cys Tyr Gln Asp Asn Phe Ser Lys Phe Gly Leu Cys 945 950 955 960

Thr Phe Ser Asp Val Ala Gln Leu Ser Leu Glu Asp Leu Pro Ala Leu 965 970 975

Gly Ile Thr Leu Ala Gly His Gln Lys Lys Leu Leu His His Ile Gln 980 985 990

Leu Leu Gln Gln His Leu Arg Gln Gln Gly Ser Val Glu Val 995 1000 1005

<210> 2426

<211> 508

<212> PRT

<213> Homo sapiens

<400> 2426

Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1 10 15

- Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp 20 25 30
- Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu 35 40 45
- Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp 50 55 60
- Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser 65 70 75 80
- Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala 85 90 95
- Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
- Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
- Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu 130 135 140
- Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly 145 150 155 160
- His Val Val Leu Arg Trp Leu Pro Pro Glu Thr Pro Met Thr Ser 165 170 175
- His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
- Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser 195 200 205
- Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met 210 215 220
- Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val 225 230 235 240

Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser 245 250 255

- Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu 260 265 270
- Ser His Arg Arg Ala Leu Lys Gln Lys Ile Trp Pro Gly Ile Pro Ser 275 280 285
- Pro Glu Ser Glu Phe Glu Gly Leu Phe Thr Thr His Lys Gly Asn Phe 290 295 300
- Gln Leu Trp Leu Tyr Gln Asn Asp Gly Cys Leu Trp Trp Ser Pro Cys 305 310 315 320
- Thr Pro Phe Thr Glu Asp Pro Pro Ala Ser Leu Glu Val Leu Ser Glu 325 330 335
- Arg Cys Trp Gly Thr Met Gln Ala Val Glu Pro Gly Thr Asp Asp Glu 340 345 350
- Gly Pro Leu Leu Glu Pro Val Gly Ser Glu His Ala Gln Asp Thr Tyr 355 360 365
- Leu Val Leu Asp Lys Trp Leu Leu Pro Arg Asn Pro Pro Ser Glu Asp 370 375 380
- Leu Pro Gly Pro Gly Gly Ser Val Asp Ile Val Ala Met Asp Glu Gly 385 390 395 400
- Ser Glu Ala Ser Ser Cys Ser Ser Ala Leu Ala Ser Lys Pro Ser Pro 405 410 415
- Glu Gly Ala Ser Ala Ala Ser Phe Glu Tyr Thr Ile Leu Asp Pro Ser 420 425 430
- Ser Gln Leu Leu Arg Pro Trp Thr Leu Cys Pro Glu Leu Pro Pro Thr 435 440 445
- Pro Pro His Leu Lys Tyr Leu Tyr Leu Val Val Ser Asp Ser Gly Ile 450 455 460
- Ser Thr Asp Tyr Ser Ser Gly Asp Ser Gln Gly Ala Gln Gly Gly Leu 465 470 475 480
- Ser Asp Gly Pro Tyr Ser Asn Pro Tyr Glu Asn Ser Leu Ile Pro Ala

485

490

495

Ala Glu Pro Leu Pro Pro Ser Tyr Val Ala Cys Ser 500 505

<210> 2427

<211> 441

<212> PRT

<213> Homo sapiens

<400> 2427

Met Ser Pro Ile Ser Gly Ala Ser Pro Ser Trp Arg Ala Ala Pro Lys

1 10 15

Ala Ser Asp Leu Leu Gly Ala Arg Gly Pro Gly Gly Thr Phe Gln Gly 20 25 30

Arg Asp Leu Arg Gly Gly Ala His Ala Ser Ser Ser Ser Leu Asn Pro 35 40 45

Met Pro Pro Ser Gln Leu Gln Leu Ser Thr Val Asp Ala His Ala Arg 50 55 60

Thr Pro Val Leu Gln Val His Pro Leu Glu Ser Pro Ala Met Ile Ser 65 70 75 80

Leu Thr Pro Pro Thr Thr Ala Thr Gly Val Phe Ser Leu Lys Ala Arg

Pro Gly Leu Pro Pro Gly Ile Asn Val Ala Ser Leu Glu Trp Val Ser 100 105 110

Arg Glu Pro Ala Leu Leu Cys Thr Phe Pro Asn Pro Ser Ala Pro Arg 115 120 125

Lys Asp Ser Thr Leu Ser Ala Val Pro Gln Ser Ser Tyr Pro Leu Leu 130 135 140

Ala Asn Gly Val Cys Lys Trp Pro Gly Cys Glu Lys Val Phe Glu Glu
145 150 155 160

Pro Glu Asp Phe Leu Lys His Cys Gln Ala Asp His Leu Leu Asp Glu 165 170 175

Lys Gly Arg Ala Gln Cys Leu Leu Gln Arg Glu Met Val Gln Ser Leu 180 185 190 Glu Gln Gln Leu Val Leu Glu Lys Glu Lys Leu Ser Ala Met Gln Ala 195 200 205

- His Leu Ala Gly Lys Met Ala Leu Thr Lys Ala Ser Ser Val Ala Ser 210 215 220
- Ser Asp Lys Gly Ser Cys Cys Ile Val Ala Ala Gly Ser Gln Gly Pro 230 235 240
- Val Val Pro Ala Trp Ser Gly Pro Arg Glu Ala Pro Asp Ser Leu Phe 245 250 255
- Ala Val Arg Arg His Leu Trp Gly Ser His Gly Asn Ser Thr Phe Pro 260 265 270
- Glu Phe Leu His Asn Met Asp Tyr Phe Lys Phe His Asn Met Arg Pro 275 280 285
- Pro Phe Thr Tyr Ala Thr Leu Ile Arg Trp Ala Ile Leu Glu Ala Pro 290 295 300
- Glu Lys Gln Arg Thr Leu Asn Glu Ile Tyr His Trp Phe Thr Arg Met 305 310 315 320
- Phe Ala Phe Phe Arg Asn His Pro Ala Thr Trp Lys Val Ser Ser Ser 325 330 335
- Glu Val Ala Val Thr Gly Met Ala Ser Ser Ala Ile Ala Ala Gln Ser 340 345 350
- Gly Gln Ala Trp Val Trp Ala His Arg His Ile Gly Glu Glu Arg Asp 355 360 365
- Val Gly Cys Trp Trp Trp Leu Leu Ala Ser Glu Val Asp Ala His Leu 370 380
- Leu Pro Val Pro Gly Leu Pro Gln Asn Ala Ile Arg His Asn Leu Ser 385 390 395 400
- Leu His Lys Cys Phe Val Arg Val Glu Ser Glu Lys Gly Ala Val Trp 405 410 415
- Thr Val Asp Glu Leu Glu Phe Arg Lys Lys Arg Ser Gln Arg Pro Ser 420 425 430

Arg Cys Ser Asn Pro Thr Pro Gly Pro
435 440

<210> 2428

<211> 413

<212> PRT

<213> Homo sapiens

<400> 2428

Met Glu Phe Pro Gly Leu Gly Ser Leu Gly Thr Ser Glu Pro Leu Pro 1 5 10 15

Gln Phe Val Asp Pro Ala Leu Val Ser Ser Thr Pro Glu Ser Gly Val 20 25 30

Phe Phe Pro Ser Gly Pro Glu Gly Leu Asp Ala Ala Ser Ser Thr 35 40 45

Ala Pro Ser Thr Ala Thr Ala Ala Ala Ala Ala Leu Ala Tyr Tyr Arg
50 55 60

Asp Ala Glu Ala Tyr Arg His Ser Pro Val Phe Gln Val Tyr Pro Leu 65 70 75 80

Leu Asn Cys Met Glu Gly Ile Pro Gly Gly Ser Pro Tyr Ala Gly Trp 85 90 95

Ala Tyr Gly Lys Thr Gly Leu Tyr Pro Ala Ser Thr Val Cys Pro Thr 100 105 110

Arg Glu Asp Ser Pro Pro Gln Ala Val Glu Asp Leu Asp Gly Lys Gly
115 120 125

Ser Thr Ser Phe Leu Glu Thr Leu Lys Thr Glu Arg Leu Ser Pro Asp 130 135 140

Leu Leu Thr Leu Gly Pro Ala Leu Pro Ser Ser Leu Pro Val Pro Asn 145 150 155 160

Ser Ala Tyr Gly Gly Pro Asp Phe Ser Ser Thr Phe Phe Ser Pro Thr 165 170 175

Gly Ser Pro Leu Asn Ser Ala Ala Tyr Ser Ser Pro Lys Leu Arg Gly 180 185 190

Thr Leu Pro Leu Pro Pro Cys Glu Ala Arg Glu Cys Val Asn Cys Gly 195 200 205

Ala Thr Ala Thr Pro Leu Trp Arg Arg Asp Arg Thr Gly His Tyr Leu 210 215 220

Cys Asn Ala Cys Gly Leu Tyr His Lys Met Asn Gly Gln Asn Arg Pro 225 230 235 240

Leu Ile Arg Pro Lys Lys Arg Leu Ile Val Ser Lys Arg Ala Gly Thr 245 250 255

Gln Cys Thr Asn Cys Gln Thr Thr Thr Thr Thr Leu Trp Arg Asn 260 265 270

Ala Ser Gly Asp Pro Val Cys Asn Ala Cys Gly Leu Tyr Tyr Lys Leu 275 280 285

His Gln Val Asn Arg Pro Leu Thr Met Arg Lys Asp Gly Ile Gln Thr 290 295 300

Arg Asn Arg Lys Ala Ser Gly Lys Gly Lys Lys Lys Arg Gly Ser Ser 305 310 315

Leu Gly Gly Thr Gly Ala Ala Glu Gly Pro Ala Gly Gly Phe Met Val 325 330 335

Val Ala Gly Gly Ser Gly Ser Gly Asn Cys Gly Glu Val Ala Ser Gly 340 345 350

Leu Thr Leu Gly Pro Pro Gly Thr Ala His Leu Tyr Gln Gly Leu Gly 355 360 365

Pro Val Val Leu Ser Gly Pro Val Ser His Leu Met Pro Phe Pro Gly 370 375 380

Pro Leu Leu Gly Ser Pro Thr Gly Ser Phe Pro Thr Gly Pro Met Pro 385 390 395 400

Pro Thr Thr Ser Thr Thr Val Val Ala Pro Leu Ser Ser 405 410

<210> 2429

<211> 1039

<212> PRT

<213> Homo sapiens

<400> 2429

Met Ala Arg Ala Leu Cys Pro Leu Gln Ala Leu Trp Leu Leu Glu Trp 1 5 10 15

- Val Leu Leu Leu Gly Pro Cys Ala Ala Pro Pro Ala Trp Ala Leu 20 25 30
- Asn Leu Asp Pro Val Gln Leu Thr Phe Tyr Ala Gly Pro Asn Gly Ser 35 40 45
- Gln Phe Gly Phe Ser Leu Asp Phe His Lys Asp Ser His Gly Arg Val 50 55 60
- Ala Ile Val Val Gly Ala Pro Arg Thr Leu Gly Pro Ser Gln Glu Glu 65 70 75 80
- Thr Gly Gly Val Phe Leu Cys Pro Trp Arg Ala Glu Gly Gly Gln Cys
 85 90 95
- Pro Ser Leu Leu Phe Asp Leu Arg Asp Glu Thr Arg Asn Val Gly Ser
- Gln Thr Leu Gln Thr Phe Lys Ala Arg Gln Gly Leu Gly Ala Ser Val 115 120 125
- Val Ser Trp Ser Asp Val Ile Val Ala Cys Ala Pro Trp Gln His Trp 130 135 140
- Asn Val Leu Glu Lys Thr Glu Glu Ala Glu Lys Thr Pro Val Gly Ser 145 150 155 160
- Cys Phe Leu Ala Gln Pro Glu Ser Gly Arg Arg Ala Glu Tyr Ser Pro 165 170 175
- Cys Arg Gly Asn Thr Leu Ser Arg Ile Tyr Val Glu Asn Asp Phe Ser 180 185 190
- Trp Asp Lys Arg Tyr Cys Glu Ala Gly Phe Ser Ser Val Val Thr Gln
 195 200 205
- Ala Gly Glu Leu Val Leu Gly Ala Pro Gly Gly Tyr Tyr Phe Leu Gly 210 215 220
- Leu Leu Ala Gln Ala Pro Val Ala Asp Ile Phe Ser Ser Tyr Arg Pro 225 230 235 240
- Gly Ile Leu Leu Trp His Val Ser Ser Gln Ser Leu Ser Phe Asp Ser

245 250 255

Ser Asn Pro Glu Tyr Phe Asp Gly Tyr Trp Gly Tyr Ser Val Ala Val 260 265 270

Gly Glu Phe Asp Gly Asp Leu Asn Thr Thr Glu Tyr Val Val Gly Ala 275 280 285

Pro Thr Trp Ser Trp Thr Leu Gly Ala Val Glu Ile Leu Asp Ser Tyr 290 295 300

Tyr Gln Arg Leu His Arg Leu Arg Ala Glu Gln Met Ala Ser Tyr Phe 305 310 315 320

Gly His Ser Val Ala Val Thr Asp Val Asn Gly Asp Gly Arg His Asp 325 330 335

Leu Leu Val Gly Ala Pro Leu Tyr Met Glu Ser Arg Ala Asp Arg Lys 340 345 350

Leu Ala Glu Val Gly Arg Val Tyr Leu Phe Leu Gln Pro Arg Gly Pro 355 360 365

His Ala Leu Gly Ala Pro Ser Leu Leu Leu Thr Gly Thr Gln Leu Tyr 370 375 380

Gly Arg Phe Gly Ser Ala Ile Ala Pro Leu Gly Asp Leu Asp Arg Asp 385 390 395 400

Gly Tyr Asn Asp Ile Ala Val Ala Ala Pro Tyr Gly Gly Pro Ser Gly 405 410 415

Arg Gly Gln Val Leu Val Phe Leu Gly Gln Ser Glu Gly Leu Arg Ser 420 425 430

Arg Pro Ser Gln Val Leu Asp Ser Pro Phe Pro Thr Gly Ser Ala Phe 435 440 445

Gly Phe Ser Leu Arg Gly Ala Val Asp Ile Asp Asp Asn Gly Tyr Pro 450 455 460

Asp Leu Ile Val Gly Ala Tyr Gly Ala Asn Gln Val Ala Val Tyr Arg 465 470 475 480

Ala Gln Pro Val Val Lys Ala Ser Val Gln Leu Leu Val Gln Asp Ser 485 490 495

Leu Asn Pro Ala Val Lys Ser Cys Val Leu Pro Gln Thr Lys Thr Pro Val Ser Cys Phe Asn Ile Gln Met Cys Val Gly Ala Thr Gly His Asn 520 Ile Pro Gln Lys Leu Ser Leu Asn Ala Glu Leu Gln Leu Asp Arg Gln 535 Lys Pro Arg Gln Gly Arg Arg Val Leu Leu Gly Ser Gln Gln Ala 550 Gly Thr Thr Leu Asn Leu Asp Leu Gly Gly Lys His Ser Pro Ile Cys 570 565 His Thr Thr Met Ala Phe Leu Arg Asp Glu Ala Asp Phe Arg Asp Lys 585 580 Leu Ser Pro Ile Val Leu Ser Leu Asn Val Ser Leu Pro Pro Thr Glu 600 Ala Gly Met Ala Pro Ala Val Val Leu His Gly Asp Thr His Val Gln 620 Glu Gln Thr Arq Ile Val Leu Asp Ser Gly Glu Asp Asp Val Cys Val 625 Pro Gln Leu Gln Leu Thr Ala Ser Val Thr Gly Ser Pro Leu Leu Val 645 Gly Ala Asp Asn Val Leu Glu Leu Gln Met Asp Ala Ala Asn Glu Gly 660 665 Glu Gly Ala Tyr Glu Ala Glu Leu Ala Val His Leu Pro Gln Gly Ala 680 675 His Tyr Met Arg Ala Leu Ser Asn Val Glu Gly Phe Glu Arg Leu Ile 695 690 Cys Asn Gln Lys Lys Glu Asn Glu Thr Arg Val Val Leu Cys Glu Leu 710 715 705 Gly Asn Pro Met Lys Lys Asn Ala Gln Ile Gly Ile Ala Met Leu Val 730

725

Ser Val Gly Asn Leu Glu Glu Ala Gly Glu Ser Val Ser Phe Gln Leu 740 745 750

- Gln Ile Arg Ser Lys Asn Ser Gln Asn Pro Asn Ser Lys Ile Val Leu 755 760 765
- Leu Asp Val Pro Val Arg Ala Glu Ala Gln Val Glu Leu Arg Gly Asn 770 775 780
- Ser Phe Pro Ala Ser Leu Val Val Ala Ala Glu Glu Gly Glu Arg Glu 785 790 795 800
- Gln Asn Ser Leu Asp Ser Trp Gly Pro Lys Val Glu His Thr Tyr Glu 805 810 815
- Leu His Asn Asn Gly Pro Gly Thr Val Asn Gly Leu His Leu Ser Ile 820 825 830
- His Leu Pro Gly Gln Ser Gln Pro Ser Asp Leu Leu Tyr Ile Leu Asp 835 840 845
- Ile Gln Pro Gln Gly Gly Leu Gln Cys Phe Pro Gln Pro Pro Val Asn 850 855 860
- Pro Leu Lys Val Asp Trp Gly Leu Pro Ile Pro Ser Pro Ser Pro Ile 865 870 875 880
- His Pro Ala His His Lys Arg Asp Arg Gln Ile Phe Leu Pro Glu 885 890 895
- Pro Glu Gln Pro Ser Arg Leu Gln Asp Pro Val Leu Val Ser Cys Asp 900 905 910
- Ser Ala Pro Cys Thr Val Val Gln Cys Asp Leu Gln Glu Met Ala Arg 915 920 925
- Gly Gln Arg Ala Met Val Thr Val Leu Ala Phe Leu Trp Leu Pro Ser 930 935 940
- Leu Tyr Gln Arg Pro Leu Asp Gln Phe Val Leu Gln Ser His Ala Trp 945 950 955 960
- Phe Asn Val Ser Ser Leu Pro Tyr Ala Val Pro Pro Leu Ser Leu Pro 965 970 975

Arg Gly Glu Ala Gln Val Trp Thr Gln Leu Leu Arg Ala Leu Glu Glu 980 985 990

Arg Ala Ile Pro Ile Trp Trp Val Leu Val Gly Val Leu Gly Gly Leu 995 1000 1005

Leu Leu Leu Thr Ile Leu Val Leu Ala Met Trp Lys Val Gly Phe 1010 1015 1020

Phe Lys Arg Asn Arg Pro Pro Leu Glu Glu Asp Asp Glu Glu Gly 1025 1030 1035

Glu

<210> 2430

<211> 145

<212> PRT

<213> Homo sapiens

<400> 2430

Met Ala Thr Trp Ala Leu Leu Leu Leu Ala Ala Met Leu Leu Gly Asn 1 5 10 15

Pro Gly Leu Val Phe Ser Arg Leu Ser Pro Glu Tyr Tyr Asp Leu Ala 20 25 30

Arg Ala His Leu Arg Asp Glu Glu Lys Ser Cys Pro Cys Leu Ala Gln 35 40 45

Glu Gly Pro Gln Gly Asp Leu Leu Thr Lys Thr Gln Glu Leu Gly Arg
50 55 60

Asp Tyr Arg Thr Cys Leu Thr Ile Val Gln Lys Leu Lys Lys Met Val 65 70 75 80

Asp Lys Pro Thr Gln Arg Ser Val Ser Asn Ala Ala Thr Arg Val Cys 85 90 95

Arg Thr Gly Arg Ser Arg Trp Arg Asp Val Cys Arg Asn Phe Met Arg

Arg Tyr Gln Ser Arg Val Thr Gln Gly Leu Val Ala Gly Glu Thr Ala 115 120 125

Gln Gln Ile Cys Glu Asp Leu Arg Leu Cys Ile Pro Ser Thr Gly Pro 130 135 140

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Leu 145

<210> 2431 <211> 262 <212> PRT

<213> Homo sapiens

<400> 2431

Met Arg Asn Ser Tyr Arg Phe Leu Ala Ser Ser Leu Ser Val Val Val

Ser Leu Leu Ile Pro Glu Asp Val Cys Glu Lys Ile Ile Gly Gly 20 25

Asn Glu Val Thr Pro His Ser Arg Pro Tyr Met Val Leu Leu Ser Leu 40

Asp Arg Lys Thr Ile Cys Ala Gly Ala Leu Ile Ala Lys Asp Trp Val 55

Leu Thr Ala Ala His Cys Asn Leu Asn Lys Arg Ser Gln Val Ile Leu 75 70

Gly Ala His Ser Ile Thr Arg Glu Glu Pro Thr Lys Gln Ile Met Leu

Val Lys Lys Glu Phe Pro Tyr Pro Cys Tyr Asp Pro Ala Thr Arg Glu 105

Gly Asp Leu Lys Leu Cln Leu Thr Glu Lys Ala Lys Ile Asn Lys

Tyr Val Thr Ile Leu His Leu Pro Lys Lys Gly Asp Asp Val Lys Pro 135

Gly Thr Met Cys Gln Val Ala Gly Trp Gly Arg Thr His Asn Ser Ala 150

Ser Trp Ser Asp Thr Leu Arg Glu Val Asn Ile Thr Ile Ile Asp Arg 170 165

Lys Val Cys Asn Asp Arg Asn His Tyr Asn Phe Asn Pro Val Ile Gly 180 185

Met Asn Met Val Cys Ala Gly Ser Leu Arg Gly Gly Arg Asp Ser Cys 195 200 205

Asn Gly Asp Ser Gly Ser Pro Leu Leu Cys Glu Gly Val Phe Arg Gly 210 215 220

Val Thr Ser Phe Gly Leu Glu Asn Lys Cys Gly Asp Pro Arg Gly Pro 225 230 235 240

Gly Val Tyr Ile Leu Leu Ser Lys Lys His Leu Asn Trp Ile Ile Met 245 250 255

Thr Ile Lys Gly Ala Val 260

<210> 2432

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2432

Met Val Leu Ser Pro Ala Asp Lys Thr Asn Val Lys Ala Ala Trp Gly
1 5 10 15

Lys Val Gly Ala His Ala Gly Glu Tyr Gly Ala Glu Ala Leu Glu Arg 20 25 30

Met Phe Leu Ser Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asp 35 40 45

Leu Ser His Gly Ser Ala Gln Val Lys Gly His Gly Lys Lys Val Ala 50 55 60

Asp Ala Leu Thr Asn Ala Val Ala His Val Asp Asp Met Pro Asn Ala 65 70 75 80

Leu Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro
85 90 95

Val Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala 100 105 110

His Leu Pro Ala Glu Phe Thr Pro Ala Val His Ala Ser Leu Asp Lys 115 120 125

Phe Leu Ala Ser Val Ser Thr Val Leu Thr Ser Lys Tyr Arg 130 135 140

<210> 2433

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2433

Met Ser Leu Thr Lys Thr Glu Arg Thr Ile Ile Val Ser Met Trp Ala 1 5 10 15

Lys Ile Ser Thr Gln Ala Asp Thr Ile Gly Thr Glu Thr Leu Glu Arg
20 25 30

Leu Phe Leu Ser His Pro Gln Thr Lys Thr Tyr Phe Pro His Phe Asp 35 40 45

Leu His Pro Gly Ser Ala Gln Leu Arg Ala His Gly Ser Lys Val Val 50 55 60

Ala Ala Val Gly Asp Ala Val Lys Ser Ile Asp Asp Ile Gly Gly Ala 65 70 75 80

Leu Ser Lys Leu Ser Glu Leu His Ala Tyr Ile Leu Arg Val Asp Pro 85 90 95

Val Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala 100 105 110

Arg Phe Pro Ala Asp Phe Thr Ala Glu Ala His Ala Ala Trp Asp Lys 115 120 125

Phe Leu Ser Val Val Ser Ser Val Leu Thr Glu Lys Tyr Arg 130 135 140

<210> 2434

<211> 147

<212> PRT

<213> Homo sapiens

<400> 2434

Met Val His Leu Thr Pro Glu Glu Lys Thr Ala Val Asn Ala Leu Trp
5 10 15

Gly Lys Val Asn Val Asp Ala Val Gly Gly Glu Ala Leu Gly Arg Leu 20 25 30

Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp

35 40 45

Leu Ser Ser Pro Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His 50 55 60

Gly Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp 65 70 75 80

Asn Leu Lys Gly Thr Phe Ser Gln Leu Ser Glu Leu His Cys Asp Lys 85 90 95

Leu His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Val Leu Val

Cys Val Leu Ala Arg Asn Phe Gly Lys Glu Phe Thr Pro Gln Met Gln 115 120 125

Ala Ala Tyr Gln Lys Val Val Ala Gly Val Ala Asn Ala Leu Ala His 130 135 140

Lys Tyr His 145

<210> 2435

<211> 147

<212> PRT

<213> Homo sapiens

<400> 2435

Met Val His Phe Thr Ala Glu Glu Lys Ala Ala Val Thr Ser Leu Trp 5 10 15

Ser Lys Met Asn Val Glu Glu Ala Gly Gly Glu Ala Leu Gly Arg Leu 20 25 30

Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Asp Ser Phe Gly Asn 35 40 45

Leu Ser Ser Pro Ser Ala Ile Leu Gly Asn Pro Lys Val Lys Ala His 50 55 60

Gly Lys Lys Val Leu Thr Ser Phe Gly Asp Ala Ile Lys Asn Met Asp 65 70 75 80

Asn Leu Lys Pro Ala Phe Ala Lys Leu Ser Glu Leu His Cys Asp Lys 85 90 95

Leu His Val Asp Pro Glu Asn Phe Lys Leu Leu Gly Asn Val Met Val

Ile Ile Leu Ala Thr His Phe Gly Lys Glu Phe Thr Pro Glu Val Gln
115 120 125

Ala Ala Trp Gln Lys Leu Val Ser Ala Val Ala Ile Ala Leu Ala His 130 135 140

Lys Tyr His 145

<210> 2436

<211> 147

<212> PRT

<213> Homo sapiens

<400> 2436

Met Gly His Phe Thr Glu Glu Asp Lys Ala Thr Ile Thr Ser Leu Trp 1 5 10 15

Gly Lys Val Asn Val Glu Asp Ala Gly Gly Glu Thr Leu Gly Arg Leu 20 25 30

Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Asp Ser Phe Gly Asn 35 40 45

Leu Ser Ser Ala Ser Ala Ile Met Gly Asn Pro Lys Val Lys Ala His 50 55 60

Gly Lys Lys Val Leu Thr Ser Leu Gly Asp Ala Thr Lys His Leu Asp 65 70 75 80

Asp Leu Lys Gly Thr Phe Ala Gln Leu Ser Glu Leu His Cys Asp Lys 85 90 95

Leu His Val Asp Pro Glu Asn Phe Lys Leu Leu Gly Asn Val Leu Val

Thr Val Leu Ala Ile His Phe Gly Lys Glu Phe Thr Pro Glu Val Gln 115 120 125

Ala Ser Trp Gln Lys Met Val Thr Ala Val Ala Ser Ala Leu Ser Ser 130 140

Arg Tyr His

145

<210> 2437

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2437

Met Ala Leu Ser Ala Glu Asp Arg Ala Leu Val Arg Ala Leu Trp Lys 1 5 10 15

Lys Leu Gly Ser Asn Val Gly Val Tyr Thr Thr Glu Ala Leu Glu Arg
20 25 30

Thr Phe Leu Ala Phe Pro Ala Thr Lys Thr Tyr Phe Ser His Leu Asp 35 40 45

Leu Ser Pro Gly Ser Ser Gln Val Arg Ala His Gly Gln Lys Val Ala 50 55 60

Asp Ala Leu Ser Leu Ala Val Glu Arg Leu Asp Asp Leu Pro His Ala 65 70 75 80

Leu Ser Ala Leu Ser His Leu His Ala Cys Gln Leu Arg Val Asp Pro 85 90 95

Ala Ser Phe Gln Leu Leu Gly His Cys Leu Leu Val Thr Leu Ala Arg 100 105 110

His Tyr Pro Gly Asp Phe Ser Pro Ala Leu Gln Ala Ser Leu Asp Lys 115 120 125

Phe Leu Ser His Val Ile Ser Ala Leu Val Ser Glu Tyr Arg 130 135 140

<210> 2438

<211> 260

<212> PRT

<213> Homo sapiens

<400> 2438

Met Arg Pro Glu Asp Arg Met Phe His Ile Arg Ala Val Ile Leu Arg 1 5 10 15

Ala Leu Ser Leu Ala Phe Leu Leu Ser Leu Arg Gly Ala Gly Ala Ile 20 25 30

Lys Ala Asp His Val Ser Thr Tyr Ala Ala Phe Val Gln Thr His Arg 35 40 45

Pro Thr Gly Glu Phe Met Phe Glu Phe Asp Glu Asp Glu Met Phe Tyr 50 55 60

Val Asp Leu Asp Lys Lys Glu Thr Val Trp His Leu Glu Glu Phe Gly 65 70 75 80

Gln Ala Phe Ser Phe Glu Ala Gln Gly Gly Leu Ala Asn Ile Ala Ile 85 90 95

Leu Asn Asn Leu Asn Thr Leu Ile Gln Arg Ser Asn His Thr Gln
100 105 110

Ala Thr Asn Asp Pro Pro Glu Val Thr Val Phe Pro Lys Glu Pro Val 115 120 125

Glu Leu Gly Gln Pro Asn Thr Leu Ile Cys His Ile Asp Lys Phe Phe 130 135 140

Pro Pro Val Leu Asn Val Thr Trp Leu Cys Asn Gly Glu Leu Val Thr 145 150 155 160

Glu Gly Val Ala Glu Ser Leu Phe Leu Pro Arg Thr Asp Tyr Ser Phe 165 170 175

His Lys Phe His Tyr Leu Thr Phe Val Pro Ser Ala Glu Asp Phe Tyr 180 185 190

Asp Cys Arg Val Glu His Trp Gly Leu Asp Gln Pro Leu Leu Lys His 195 200 205

Trp Glu Ala Gln Glu Pro Ile Gln Met Pro Glu Thr Thr Glu Thr Val 210 215 220

Leu Cys Ala Leu Gly Leu Val Leu Gly Leu Val Gly Ile Ile Val Gly 225 230 235 240

Thr Val Leu Ile Ile Lys Ser Leu Arg Ser Gly His Asp Pro Arg Ala 245 250 255

Gln Gly Thr Leu 260

<210> 2439

- <211> 255
- <212> PRT
- <213> Homo sapiens
- <400> 2439
- Met Ile Leu Asn Lys Ala Leu Leu Leu Gly Ala Leu Ala Leu Thr Thr 1 5 10 15
- Val Met Ser Pro Cys Gly Gly Glu Asp Ile Val Ala Asp His Val Ala 20 25 30
- Ser Cys Gly Val Asn Leu Tyr Gln Phe Tyr Gly Pro Ser Gly Gln Tyr 35 40 45
- Thr His Glu Phe Asp Gly Asp Glu Gln Phe Tyr Val Asp Leu Glu Arg 50 55 60
- Lys Glu Thr Ala Trp Arg Trp Pro Glu Phe Ser Lys Phe Gly Gly Phe 65 70 75 80
- Asp Pro Gln Gly Ala Leu Arg Asn Met Ala Val Ala Lys His Asn Leu 85 90 95
- Asn Ile Met Ile Lys Arg Tyr Asn Ser Thr Ala Ala Thr Asn Glu Val
- Pro Glu Val Thr Val Phe Ser Lys Ser Pro Val Thr Leu Gly Gln Pro 115 120 125
- Asn Thr Leu Ile Cys Leu Val Asp Asn Ile Phe Pro Pro Val Val Asn 130 135 140
- Ile Thr Trp Leu Ser Asn Gly Gln Ser Val Thr Glu Gly Val Ser Glu
 145 150 155 160
- Thr Ser Phe Leu Ser Lys Ser Asp His Ser Phe Phe Lys Ile Ser Tyr 165 170 175
- Leu Thr Phe Leu Pro Ser Ala Asp Glu Ile Tyr Asp Cys Lys Val Glu 180 185 190
- His Trp Gly Leu Asp Gln Pro Leu Leu Lys His Trp Glu Pro Glu Ile 195 200 205
- Pro Ala Pro Met Ser Glu Leu Thr Glu Thr Val Val Cys Ala Leu Gly 210 215 220

Leu Ser Val Gly Leu Met Gly Ile Val Val Gly Thr Val Phe Ile Ile
225 230 235 240

Gln Gly Leu Arg Ser Val Gly Ala Ser Arg His Gln Gly Pro Leu 245 250 255

<210> 2440

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2440

Met Lys Ser Gly Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys 1 5 10 15

Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile 20 25 30

Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val 35 40 45

Gln Gln Phe Lys Met Gln Leu Lys Gly Gly Gln Ile Leu Cys Asp 50 55 60

Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu 65 70 75 80

Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu 85 90 95

Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser 100 105 110

Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu 115 120 125

His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro 130 135 140

Ile Gly Cys Ala Ala Phe Val Val Cys Ile Leu Gly Cys Ile Leu 145 150 155 160

Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro 165 170 175

Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser

180 185 190

Arg Leu Thr Asp Val Thr Leu 195

<210> 2441

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2441

Met Ala Ala Glu Pro Val Glu Asp Asn Cys Ile Asn Phe Val Ala Met
1 10 15

Lys Phe Ile Asp Asn Thr Leu Tyr Phe Ile Ala Glu Asp Asp Glu Asn 20 25 30

Leu Glu Ser Asp Tyr Phe Gly Lys Leu Glu Ser Lys Leu Ser Val Ile 35 40 45

Arg Asn Leu Asn Asp Gln Val Leu Phe Ile Asp Gln Gly Asn Arg Pro 50 55 60

Leu Phe Glu Asp Met Thr Asp Ser Asp Cys Arg Asp Asn Ala Pro Arg 65 70 75 80

Thr Ile Phe Ile Ile Ser Met Tyr Lys Asp Ser Gln Pro Arg Gly Met 85 90 95

Ala Val Thr Ile Ser Val Lys Cys Glu Lys Ile Ser Thr Leu Ser Cys 100 105 110

Glu Asn Lys Ile Ile Ser Phe Lys Glu Met Asn Pro Pro Asp Asn Ile 115 120 125

Lys Asp Thr Lys Ser Asp Ile Ile Phe Phe Gln Arg Ser Val Pro Gly
130 135 140

His Asp Asn Lys Met Gln Phe Glu Ser Ser Ser Tyr Glu Gly Tyr Phe 145 150 155 160

Leu Ala Cys Glu Lys Glu Arg Asp Leu Phe Lys Leu Ile Leu Lys Lys 165 170 175

Glu Asp Glu Leu Gly Asp Arg Ser Ile Met Phe Thr Val Gln Asn Glu 180 185 190

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Asp

<210> 2442

<211> 152

<212> PRT

<213> Homo sapiens

<400> 2442

Met Ser Arg Leu Pro Val Leu Leu Leu Gln Leu Leu Val Arg Pro

Gly Leu Gln Ala Pro Met Thr Gln Thr Thr Pro Leu Lys Thr Ser Trp

Val Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr His Leu Lys Gln

Pro Pro Leu Pro Leu Leu Asp Phe Asn Asn Leu Asn Gly Glu Asp Gln

Asp Ile Leu Met Glu Asn Asn Leu Arg Arg Pro Asn Leu Glu Ala Phe

Asn Arg Ala Val Lys Ser Leu Gln Asn Ala Ser Ala Ile Glu Ser Ile 85

Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala Ala Pro Thr 105 100

Arg His Pro Ile His Ile Lys Asp Gly Asp Trp Asn Glu Phe Arg Arg 120 115

Lys Leu Thr Phe Tyr Leu Lys Thr Leu Glu Asn Ala Gln Ala Gln Gln 140 130 135

Thr Thr Leu Ser Leu Ala Ile Phe 145 150

<210> 2443 <211> 1038 <212> PRT <213> Homo sapiens

<400> 2443

Met Phe Pro Thr Glu Ser Ala Trp Leu Gly Lys Arg Gly Ala Asn Pro 10

Gly Pro Glu Ala Ala Val Arg Glu Thr Val Met Leu Leu Cys Leu 20 25 30

Gly Val Pro Thr Gly Arg Pro Tyr Asn Val Asp Thr Glu Ser Ala Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Tyr Gln Gly Pro His Asn Thr Leu Phe Gly Tyr Ser Val Val Leu 50 55 60

His Ser His Gly Ala Asn Arg Trp Leu Leu Val Gly Ala Pro Thr Ala 65 70 75 80

Asn Trp Leu Ala Asn Ala Ser Val Ile Asn Pro Gly Ala Ile Tyr Arg 85 90 95

Cys Arg Ile Gly Lys Asn Pro Gly Gln Thr Cys Glu Gln Leu Gln Leu 100 105 110

Gly Ser Pro Asn Gly Glu Pro Cys Gly Lys Thr Cys Leu Glu Glu Arg 115 120 125

Asp Asn Gln Trp Leu Gly Val Thr Leu Ser Arg Gln Pro Gly Glu Asn 130 135 140

Gly Ser Ile Val Thr Cys Gly His Arg Trp Lys Asn Ile Phe Tyr Ile 145 150 155 160

Lys Asn Glu Asn Lys Leu Pro Thr Gly Gly Cys Tyr Gly Val Pro Pro 165 170 175

Asp Leu Arg Thr Glu Leu Ser Lys Arg Ile Ala Pro Cys Tyr Gln Asp 180 185 190

Tyr Val Lys Lys Phe Gly Glu Asn Phe Ala Ser Cys Gln Ala Gly Ile 195 200 205

Ser Ser Phe Tyr Thr Lys Asp Leu Ile Val Met Gly Ala Pro Gly Ser 210 215 220

Ser Tyr Trp Thr Gly Ser Leu Phe Val Tyr Asn Ile Thr Thr Asn Lys 225 230 235 240

Tyr Lys Ala Phe Leu Asp Lys Gln Asn Gln Val Lys Phe Gly Ser Tyr 245 250 255

Leu Gly Tyr Ser Val Gly Ala Gly His Phe Arg Ser Gln His Thr Thr 260 265 270

- Glu Val Val Gly Gly Ala Pro Gln His Glu Gln Ile Gly Lys Ala Tyr 275 280 285
- Ile Phe Ser Ile Asp Glu Lys Glu Leu Asn Ile Leu His Glu Met Lys 290 295 300
- Gly Lys Lys Leu Gly Ser Tyr Phe Gly Ala Ser Val Cys Ala Val Asp 305 310 315 320
- Leu Asn Ala Asp Gly Phe Ser Asp Leu Leu Val Gly Ala Pro Met Gln 325 330 335
- Ser Thr Ile Arg Glu Glu Gly Arg Val Phe Val Tyr Ile Asn Ser Gly 340 345 350
- Ser Gly Ala Val Met Asn Ala Met Glu Thr Asn Leu Val Gly Ser Asp 355 360 365
- Lys Tyr Ala Ala Arg Phe Gly Glu Ser Ile Val Asn Leu Gly Asp Ile 370 375 380
- Asp Asn Asp Gly Phe Glu Asp Val Ala Ile Gly Ala Pro Gln Glu Asp 385 390 395 400
- Asp Leu Gln Gly Ala Ile Tyr Ile Tyr Asn Gly Arg Ala Asp Gly Ile 405 410 415
- Ser Ser Thr Phe Ser Gln Arg Ile Glu Gly Leu Gln Ile Ser Lys Ser 420 425 430
- Leu Ser Met Phe Gly Gln Ser Ile Ser Gly Gln Ile Asp Ala Asp Asn 435 440 445
- Asn Gly Tyr Val Asp Val Ala Val Gly Ala Phe Arg Ser Asp Ser Ala 450 455 460
- Val Leu Leu Arg Thr Arg Pro Val Val Ile Val Asp Ala Ser Leu Ser 465 470 475 480
- His Pro Glu Ser Val Asn Arg Thr Lys Phe Asp Cys Val Glu Asn Gly 485 490 495

Trp Pro Ser Val Cys Ile Asp Leu Thr Leu Cys Phe Ser Tyr Lys Gly
500 505 510

- Lys Glu Val Pro Gly Tyr Ile Val Leu Phe Tyr Asn Met Ser Leu Asp 515 520 525
- Val Asn Arg Lys Ala Glu Ser Pro Pro Arg Phe Tyr Phe Ser Ser Asn 530 535 540
- Gly Thr Ser Asp Val Ile Thr Gly Ser Ile Gln Val Ser Ser Arg Glu 545 550 555 560
- Ala Asn Cys Arg Thr His Gln Ala Phe Met Arg Lys Asp Val Arg Asp 565 570 575
- Ile Leu Thr Pro Ile Gln Ile Glu Ala Ala Tyr His Leu Gly Pro His 580 585 590
- Val Ile Ser Lys Arg Ser Thr Glu Glu Phe Pro Pro Leu Gln Pro Ile 595 600 605
- Leu Gln Gln Lys Lys Glu Lys Asp Ile Met Lys Lys Thr Ile Asn Phe 610 615 620
- Ala Arg Phe Cys Ala His Glu Asn Cys Ser Ala Asp Leu Gln Val Ser 625 630 635 640
- Ala Lys Ile Gly Phe Leu Lys Pro His Glu Asn Lys Thr Tyr Leu Ala 645 650 655
- Val Gly Ser Met Lys Thr Leu Met Leu Asn Val Ser Leu Phe Asn Ala 660 665 670
- Gly Asp Asp Ala Tyr Glu Thr Thr Leu His Val Lys Leu Pro Val Gly 675 680 685
- Leu Tyr Phe Ile Lys Ile Leu Glu Leu Glu Glu Lys Gln Ile Asn Cys 690 695 700
- Glu Val Thr Asp Asn Ser Gly Val Val Gln Leu Asp Cys Ser Ile Gly 705 710 715 720
- Tyr Ile Tyr Val Asp His Leu Ser Arg Ile Asp Ile Ser Phe Leu Leu 725 730 735
- Asp Val Ser Ser Leu Ser Arg Ala Glu Glu Asp Leu Ser Ile Thr Val

740 745 . 750

His Ala Thr Cys Glu Asn Glu Glu Glu Met Asp Asn Leu Lys His Ser

Arg Val Thr Val Ala Ile Pro Leu Lys Tyr Glu Val Lys Leu Thr Val 770 780

His Gly Phe Val Asn Pro Thr Ser Phe Val Tyr Gly Ser Asn Asp Glu
785 790 795 800

Asn Glu Pro Glu Thr Cys Met Val Glu Lys Met Asn Leu Thr Phe His 805 810 815

Val Ile Asn Thr Gly Asn Ser Met Ala Pro Asn Val Ser Val Glu Ile 820 825 830

Met Val Pro Asn Ser Phe Ser Pro Gln Thr Asp Lys Leu Phe Asn Ile 835 840 845

Leu Asp Val Gln Thr Thr Gly Glu Cys His Phe Glu Asn Tyr Gln 850 860

Arg Val Cys Ala Leu Glu Gln Gln Lys Ser Ala Met Gln Thr Leu Lys 865 870 875 880

Gly Ile Val Arg Phe Leu Ser Lys Thr Asp Lys Arg Leu Leu Tyr Cys 885 890 895

Ile Lys Ala Asp Pro His Cys Leu Asn Phe Leu Cys Asn Phe Gly Lys 900 905 910

Met Glu Ser Gly Lys Glu Ala Ser Val His Ile Gln Leu Glu Gly Arg 915 920 925

Pro Ser Ile Leu Glu Met Asp Glu Thr Ser Ala Leu Lys Phe Glu Ile 930 935 940

Arg Ala Thr Gly Phe Pro Glu Pro Asn Pro Arg Val Ile Glu Leu Asn 945 950 955 960

Lys Asp Glu Asn Val Ala His Val Leu Leu Glu Gly Leu His His Gln 965 970 975

Arg Pro Lys Arg Tyr Phe Thr Ile Val Ile Ile Ser Ser Ser Leu Leu 980 985 990

Leu Gly Leu Ile Val Leu Leu Leu Ile Ser Tyr Val Met Trp Lys Ala 995 1000 1005

Gly Phe Phe Lys Arg Gln Tyr Lys Ser Ile Leu Gln Glu Glu Asn 1010 1015 1020

Arg Arg Asp Ser Trp Ser Tyr Ile Asn Ser Lys Ser Asn Asp Asp 1025 1030 1035

<210> 2444

<211> 1152

<212> PRT

<213> Homo sapiens

<400> 2444

Met Ala Leu Arg Val Leu Leu Leu Thr Ala Leu Thr Leu Cys His Gly
1 10 15

Phe Asn Leu Asp Thr Glu Asn Ala Met Thr Phe Gln Glu Asn Ala Arg 20 25 30

Gly Phe Gly Gln Ser Val Val Gln Leu Gln Gly Ser Arg Val Val
35 40 45

Gly Ala Pro Gln Glu Ile Val Ala Ala Asn Gln Arg Gly Ser Leu Tyr 50 55 60

Gln Cys Asp Tyr Ser Thr Gly Ser Cys Glu Pro Ile Arg Leu Gln Val 65 70 75 80

Pro Val Glu Ala Val Asn Met Ser Leu Gly Leu Ser Leu Ala Ala Thr 85 90 95

Thr Ser Pro Pro Gln Leu Leu Ala Cys Gly Pro Thr Val His Gln Thr 100 105 110

Cys Ser Glu Asn Thr Tyr Val Lys Gly Leu Cys Phe Leu Phe Gly Ser 115 120 125

Asn Leu Arg Gln Gln Pro Gln Lys Phe Pro Glu Ala Leu Arg Gly Cys 130 135 140

Pro Gln Glu Asp Ser Asp Ile Ala Phe Leu Ile Asp Gly Ser Gly Ser 145 150 155 160

Ile	Ile	Pro	His	Asp	Phe	Arg	Arg	Met	Lys	Glu	Phe	Val	Ser	Thr	Val
				165					170					175	

- Met Glu Gln Leu Lys Lys Ser Lys Thr Leu Phe Ser Leu Met Gln Tyr 180 185 190
- Ser Glu Glu Phe Arg Ile His Phe Thr Phe Lys Glu Phe Gln Asn Asn 195 200 205
- Pro Asn Pro Arg Ser Leu Val Lys Pro Ile Thr Gln Leu Leu Gly Arg 210 215 220
- Thr His Thr Ala Thr Gly Ile Arg Lys Val Val Arg Glu Leu Phe Asn 225 230 235 240
- Ile Thr Asn Gly Ala Arg Lys Asn Ala Phe Lys Ile Leu Val Val Ile 245 250 255
- Thr Asp Gly Glu Lys Phe Gly Asp Pro Leu Gly Tyr Glu Asp Val Ile 260 265 270
- Pro Glu Ala Asp Arg Glu Gly Val Ile Arg Tyr Val Ile Gly Val Gly 275 280 285
- Asp Ala Phe Arg Ser Glu Lys Ser Arg Gln Glu Leu Asn Thr Ile Ala 290 295 300
- Ser Lys Pro Pro Arg Asp His Val Phe Gln Val Asn Asn Phe Glu Ala 305 310 315 320
- Leu Lys Thr Ile Gln Asn Gln Leu Arg Glu Lys Ile Phe Ala Ile Glu 325 330 335
- Gly Thr Gln Thr Gly Ser Ser Ser Phe Glu His Glu Met Ser Gln 340 345 350
- Glu Gly Phe Ser Ala Ala Ile Thr Ser Asn Gly Pro Leu Leu Ser Thr 355 360 365
- Val Gly Ser Tyr Asp Trp Ala Gly Gly Val Phe Leu Tyr Thr Ser Lys 370 375 380
- Glu Lys Ser Thr Phe Ile Asn Met Thr Arg Val Asp Ser Asp Met Asn 385 390 395 400
- Asp Ala Tyr Leu Gly Tyr Ala Ala Ala Ile Ile Leu Arg Asn Arg Val

405 410 415

Gln Ser Leu Val Leu Gly Ala Pro Arg Tyr Gln His Ile Gly Leu Val 420 425 430

Ala Met Phe Arg Gln Asn Thr Gly Met Trp Glu Ser Asn Ala Asn Val 435 440 445

Lys Gly Thr Gln Ile Gly Ala Tyr Phe Gly Ala Ser Leu Cys Ser Val 450 455 460

Asp Val Asp Ser Asn Gly Ser Thr Asp Leu Val Leu Ile Gly Ala Pro 465 470 475 480

His Tyr Tyr Glu Gln Thr Arg Gly Gly Gln Val Ser Val Cys Pro Leu 485 490 495

Pro Arg Gly Arg Ala Arg Trp Gln Cys Asp Ala Val Leu Tyr Gly Glu 500 505 510

Gln Gly Gln Pro Trp Gly Arg Phe Gly Ala Ala Leu Thr Val Leu Gly 515 520 525

Asp Val Asn Gly Asp Lys Leu Thr Asp Val Ala Ile Gly Ala Pro Gly 530 535 540

Glu Glu Asp Asn Arg Gly Ala Val Tyr Leu Phe His Gly Thr Ser Gly 545 550 555 560

Ser Gly Ile Ser Pro Ser His Ser Gln Arg Ile Ala Gly Ser Lys Leu 565 570 575

Ser Pro Arg Leu Gln Tyr Phe Gly Gln Ser Leu Ser Gly Gly Gln Asp 580 585 590

Leu Thr Met Asp Gly Leu Val Asp Leu Thr Val Gly Ala Gln Gly His
595 600 605

Val Leu Leu Leu Arg Ser Gln Pro Val Leu Arg Val Lys Ala Ile Met 610 615 620

Glu Phe Asn Pro Arg Glu Val Ala Arg Asn Val Phe Glu Cys Asn Asp 625 630 635 640

Gln Val Val Lys Gly Lys Glu Ala Gly Glu Val Arg Val Cys Leu His 645 650 655

Val Gln Lys Ser Thr Arg Asp Arg Leu Arg Glu Gly Gln Ile Gln Ser 660 665 670

- Val Val Thr Tyr Asp Leu Ala Leu Asp Ser Gly Arg Pro His Ser Arg 675 680 685
- Ala Val Phe Asn Glu Thr Lys Asn Ser Thr Arg Arg Gln Thr Gln Val 690 695 700
- Leu Gly Leu Thr Gln Thr Cys Glu Thr Leu Lys Leu Gln Leu Pro Asn 705 710 715 720
- Cys Ile Glu Asp Pro Val Ser Pro Ile Val Leu Arg Leu Asn Phe Ser 725 730 735
- Leu Val Gly Thr Pro Leu Ser Ala Phe Gly Asn Leu Arg Pro Val Leu 740 745 750
- Ala Glu Asp Ala Gln Arg Leu Phe Thr Ala Leu Phe Pro Phe Glu Lys 755 760 765
- Asn Cys Gly Asn Asp Asn Ile Cys Gln Asp Asp Leu Ser Ile Thr Phe
 770 780
- Ser Phe Met Ser Leu Asp Cys Leu Val Val Gly Gly Pro Arg Glu Phe 785 790 795 800
- Asn Val Thr Val Thr Val Arg Asn Asp Gly Glu Asp Ser Tyr Arg Thr 805 810 815
- Gln Val Thr Phe Phe Phe Pro Leu Asp Leu Ser Tyr Arg Lys Val Ser 820 825 830
- Thr Leu Gln Asn Gln Arg Ser Gln Arg Ser Trp Arg Leu Ala Cys Glu 835 840 845
- Ser Ala Ser Ser Thr Glu Val Ser Gly Ala Leu Lys Ser Thr Ser Cys 850 855 860
- Ser Ile Asn His Pro Ile Phe Pro Glu Asn Ser Glu Val Thr Phe Asn 865 870 875 880
- Ile Thr Phe Asp Val Asp Ser Lys Ala Ser Leu Gly Asn Lys Leu Leu 885 890 895

Leu Lys Ala Asn Val Thr Ser Glu Asn Asn Met Pro Arg Thr Asn Lys
900 905 910

- Thr Glu Phe Gln Leu Glu Leu Pro Val Lys Tyr Ala Val Tyr Met Val 915 920 925
- Val Thr Ser His Gly Val Ser Thr Lys Tyr Leu Asn Phe Thr Ala Ser 930 935 940
- Glu Asn Thr Ser Arg Val Met Gln His Gln Tyr Gln Val Ser Asn Leu 945 950 955 960
- Gly Gln Arg Ser Pro Pro Ile Ser Leu Val Phe Leu Val Pro Val Arg 965 970 975
- Leu Asn Gln Thr Val Ile Trp Asp Arg Pro Gln Val Thr Phe Ser Glu 980 985 990
- Asn Leu Ser Ser Thr Cys His Thr Lys Glu Arg Leu Pro Ser His Ser 995 1000 1005
- Asp Phe Leu Ala Glu Leu Arg Lys Ala Pro Val Val Asn Cys Ser 1010 1015 1020
- Ile Ala Val Cys Gln Arg Ile Gln Cys Asp Ile Pro Phe Phe Gly 1025 1030 1035
- Ile Gln Glu Glu Phe Asn Ala Thr Leu Lys Gly Asn Leu Ser Phe 1040 1045 1050
- Asp Trp Tyr Ile Lys Thr Ser His Asn His Leu Leu Ile Val Ser
- Thr Ala Glu Ile Leu Phe Asn Asp Ser Val Phe Thr Leu Leu Pro 1070 1075 1080
- Gly Gln Gly Ala Phe Val Arg Ser Gln Thr Glu Thr Lys Val Glu 1085 1090 1095
- Pro Phe Glu Val Pro Asn Pro Leu Pro Leu Ile Val Gly Ser Ser 1100 1105 1110
- Val Gly Gly Leu Leu Leu Leu Ala Leu Ile Thr Ala Ala Leu Tyr 1115 1120 1125

Lys Leu Gly Phe Phe Lys Arg Gln Tyr Lys Asp Met Met Ser Glu 1130 1135 1140

Gly Gly Pro Pro Gly Ala Glu Pro Gln 1145 1150

<210> 2445.

<211> 798

<212> PRT

<213> Homo sapiens

<400> 2445

Met Val Ala Leu Pro Met Val Leu Val Leu Leu Leu Val Leu Ser Arg

1 10 15

Gly Glu Ser Glu Leu Asp Ala Lys Ile Pro Ser Thr Gly Asp Ala Thr 20 25 30

Glu Trp Arg Asn Pro His Leu Ser Met Leu Gly Ser Cys Gln Pro Ala 35 40 45

Pro Ser Cys Gln Lys Cys Ile Leu Ser His Pro Ser Cys Ala Trp Cys 50 55 60

Lys Gln Leu Asn Phe Thr Ala Ser Gly Glu Ala Glu Ala Arg Arg Cys
65 70 75 80

Ala Arg Arg Glu Glu Leu Leu Ala Arg Gly Cys Pro Leu Glu Glu Leu 85 90 95

Glu Glu Pro Arg Gly Gln Gln Glu Val Leu Gln Asp Gln Pro Leu Ser 100 105 110

Gln Gly Ala Arg Gly Glu Gly Ala Thr Gln Leu Ala Pro Gln Arg Val 115 120 125

Arg Val Thr Leu Arg Pro Gly Glu Pro Gln Gln Leu Gln Val Arg Phe 130 135 140

Leu Arg Ala Glu Gly Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu 145 150 155 160

Ser Tyr Ser Met Lys Asp Asp Leu Glu Arg Val Arg Gln Leu Gly His 165 170 175

Ala Leu Leu Val Arg Leu Gln Glu Val Thr His Ser Val Arg Ile Gly 180 185 190

Phe Gly Ser Phe Val Asp Lys Thr Val Leu Pro Phe Val Ser Thr Val Pro Ser Lys Leu Arg His Pro Cys Pro Thr Arg Leu Glu Arg Cys Gln Ser Pro Phe Ser Phe His His Val Leu Ser Leu Thr Gly Asp Ala Gln Ala Phe Glu Arg Glu Val Gly Arg Gln Ser Val Ser Gly Asn Leu Asp Ser Pro Glu Gly Gly Phe Asp Ala Ile Leu Gln Ala Ala Leu Cys Gln Glu Gln Ile Gly Trp Arg Asn Val Ser Arg Leu Leu Val Phe Thr Ser Asp Asp Thr Phe His Thr Ala Gly Asp Gly Lys Leu Gly Gly Ile Phe Met Pro Ser Asp Gly His Cys His Leu Asp Ser Asn Gly Leu Tyr Ser Arg Ser Thr Glu Phe Asp Tyr Pro Ser Val Gly Gln Val Ala Gln Ala Leu Ser Ala Ala Asn Ile Gln Pro Ile Phe Ala Val Thr Ser Ala Ala Leu Pro Val Tyr Gln Glu Leu Ser Lys Leu Ile Pro Lys Ser Ala Val Gly Glu Leu Ser Glu Asp Ser Ser Asn Val Val Gln Leu Ile Met Asp Ala Tyr Asn Ser Leu Ser Ser Thr Val Thr Leu Glu His Ser Ser Leu Pro Pro Gly Val His Ile Ser Tyr Glu Ser Gln Cys Glu Gly Pro Glu

Lys Arg Glu Gly Lys Ala Glu Asp Arg Gly Gln Cys Asn His Val Arg

Ile Asn Gln Thr Val Thr Phe Trp Val Ser Leu Gln Ala Thr His Cys 435 440 445

- Leu Pro Glu Pro His Leu Leu Arg Leu Arg Ala Leu Gly Phe Ser Glu 450 455 460
- Glu Leu Ile Val Glu Leu His Thr Leu Cys Asp Cys Asn Cys Ser Asp 465 470 475 480
- Thr Gln Pro Gln Ala Pro His Cys Ser Asp Gly Gln Gly His Leu Gln 485 490 495
- Cys Gly Val Cys Ser Cys Ala Pro Gly Arg Leu Gly Arg Leu Cys Glu 500 505 510
- Cys Ser Val Ala Glu Leu Ser Ser Pro Asp Leu Glu Ser Gly Cys Arg 515 520 525
- Ala Pro Asn Gly Thr Gly Pro Leu Cys Ser Gly Lys Gly His Cys Gln 530 535 540
- Cys Gly Arg Cys Ser Cys Ser Gly Gln Ser Ser Gly His Leu Cys Glu 545 550 555 560
- Cys Asp Asp Ala Ser Cys Glu Arg His Glu Gly Ile Leu Cys Gly Gly 565 570 575
- Phe Gly Arg Cys Gln Cys Gly Val Cys His Cys His Ala Asn Arg Thr 580 585 590
- Gly Arg Ala Cys Glu Cys Ser Gly Asp Met Asp Ser Cys Ile Ser Pro 595 600 605
- Glu Gly Gly Leu Cys Ser Gly His Gly Arg Cys Lys Cys Asn Arg Cys 610 615 620
- Gln Cys Leu Asp Gly Tyr Tyr Gly Ala Leu Cys Asp Gln Cys Pro Gly 625 630 635 640
- Cys Lys Thr Pro Cys Glu Arg His Arg Asp Cys Ala Glu Cys Gly Ala 645 650 655
- Phe Arg Thr Gly Pro Leu Ala Thr Asn Cys Ser Thr Ala Cys Ala His 660 665 670

Thr Asn Val Thr Leu Ala Leu Ala Pro Ile Leu Asp Asp Gly Trp Cys
675 680 685

Lys Glu Arg Thr Leu Asp Asn Gln Leu Phe Phe Leu Val Glu Asp 690 695 700

Asp Ala Arg Gly Thr Val Val Leu Arg Val Arg Pro Gln Glu Lys Gly 705 710 715 720

Ala Asp His Thr Gln Ala Ile Val Leu Gly Cys Val Gly Gly Ile Val
725 730 735

Ala Val Gly Leu Gly Leu Val Leu Ala Tyr Arg Leu Ser Val Glu Ile 740 745 750

Tyr Asp Arg Arg Glu Tyr Ser Arg Phe Glu Lys Glu Gln Gln Leu 755 760 765

Asn Trp Lys Gln Asp Ser Asn Pro Leu Tyr Lys Ser Ala Ile Thr Thr 770 775 780

Thr Ile Asn Pro Arg Phe Gln Glu Ala Asp Ser Pro Thr Leu
785 790 795

<210> 2446

<211> 345

<212> PRT -

<213> Homo sapiens

<400> 2446

Met Gln Arg Leu Val Ala Trp Asp Pro Ala Cys Leu Pro Leu Pro Pro 1 5 10 15

Pro Pro Pro Ala Phe Lys Ser Met Glu Val Ala Asn Phe Tyr Tyr Glu 20 25 30

Ala Asp Cys Leu Ala Ala Ala Tyr Gly Gly Lys Ala Ala Pro Ala Ala 35 40 45

Pro Pro Ala Ala Arg Pro Gly Pro Arg Pro Pro Ala Gly Glu Leu Gly 50 55 60

Ser Ile Gly Asp His Glu Arg Ala Ile Asp Phe Ser Pro Tyr Leu Glu 65 70 75 80

Pro Leu Gly Ala Pro Gln Ala Pro Ala Pro Ala Thr Ala Thr Asp Thr 85 . 90 95

Phe	Glu	Ala	Ala 100	Pro	Pro	Ala	Pro	Ala 105	Pro	Ala	Pro	Ala	Ser 110	Ser	Gly
Gln	His	His 115	Asp	Phe	Leu	Ser	Asp 120	Leu	Phe	Ser	Asp	Asp 125	туг	Gly	Gly
Lys	Asn 130	Cys	Lys	Lys	Pro	Ala 135	Glu	Туг	Gly	Tyr	Val 140	Ser	Leu	Gly	Arg
Leu 145	Gly	Ala	Ala	Lys	Gly 150	Ala	Leu	His	Pro	Gly 155	Cys	Phe	Ala	Pro	Leu 160
His	Pro	Pro	Pro	Pro 165	Pro	Pro	Pro	Pro	Pro 170	Ala	Glu	Leu	Lys	Ala 175	Glu
Pro	Gly	Phe	Glu 180	Pro	Ala	Asp	Сув	Lys 185	Arg	Lys	Glu	Glu	Ala 190	Gly	Ala
Pro	Gly	Gly 195	Gly	Ala	Gly	Met	Ala 200	Ala	Gly	Phe	Pro	Tyr 205	Ala	Leu	Arg
Ala	Tyr 210	Leu	Gly	Tyr	Gln	Ala 215	Val	Pro	Ser	Gly	Ser 220		Gly	Ser	Leu
Ser 225	Thr	Ser	Ser	Ser	Ser 230	Ser	Pro	Pro	Gly	Thr 235		Ser	Pro	Ala	Asp 240
Ala	Lys	Ala	Pro	Pro 245	Thr	Ala	Cys	Tyr	Ala 250		Ala	Ala	Pro	Ala 255	
Ser	Gln	Val	Lys 260	Ser	Lys	Ala	Lys	Lys 265		Val	Asp	Lys	His 270	Ser	Asp
Glu	Tyr	Lys 275		Arg	Arg	Glu	Arg 280		Asn	Ile	Ala	Val 285		Lys	Sei
Arg	Asp 290		Ala	Lys	Met	Arg 295		Leu	Glu	Thr	300		Lys	Val	Let
Glu 305		Thr	Ala	Glu	Asn 310		Arg	Leu	Gln	1 Lys 315		Val	Glu	Gln	Le: 320
Ser	Arg	Glu	Leu	Ser 325		Leu	Arg	Asn	Leu 330		Lys	Gln	Leu	Pro 335	

Pro Leu Leu Ala Ser Ser Gly His Cys 340 345

<210> 2447

<211> 373

<212> PRT

<213> Homo sapiens

<400> 2447

Met Ser Pro Cys Pro Pro Gln Gln Ser Arg Asn Arg Val Ile Gln Leu 1 5 10 15

Ser Thr Ser Glu Leu Gly Glu Met Glu Leu Thr Trp Gln Glu Ile Met 20 25 30

Ser Ile Thr Glu Leu Gln Gly Leu Asn Ala Pro Ser Glu Pro Ser Phe 35 40 45

Glu Pro Gln Ala Pro Ala Pro Tyr Leu Gly Pro Pro Pro Pro Thr Thr 50 55 60

Tyr Cys Pro Cys Ser Ile His Pro Asp Ser Gly Phe Pro Leu Pro Pro 65 70 75 80

Pro Pro Tyr Glu Leu Pro Ala Ser Thr Ser His Val Pro Asp Pro Pro 85 90 95

Tyr Ser Tyr Gly Asn Met Ala Ile Pro Val Ser Lys Pro Leu Ser Leu 100 105 110

Ser Gly Leu Leu Ser Glu Pro Leu Gln Asp Pro Leu Ala Leu Leu Asp 115 120 125

Ile Gly Leu Pro Ala Gly Pro Pro Lys Pro Glu Asp Pro Glu Ser 130 135 140

Asp Ser Gly Leu Ser Leu Asn Tyr Ser Asp Ala Glu Ser Leu Glu Leu 145 150 155 160

Glu Gly Thr Glu Ala Gly Arg Arg Arg Ser Glu Tyr Val Glu Met Tyr 165 170 175

Pro Val Glu Tyr Pro Tyr Ser Leu Met Pro Asn Ser Leu Ala His Ser 180 185 190

Asn Tyr Thr Leu Pro Ala Ala Glu Thr Pro Leu Ala Leu Glu Pro Ser

195 200 205

Ser Gly Pro Val Arg Ala Lys Pro Thr Ala Arg Gly Glu Ala Gly Ser 210 215 220

Arg Asp Glu Arg Arg Ala Leu Ala Met Lys Ile Pro Phe Pro Thr Asp 225 230 235 240

Lys Ile Val Asn Leu Pro Val Asp Asp Phe Asn Glu Leu Leu Ala Arg 245 250 255

Tyr Pro Leu Thr Glu Ser Gln Leu Ala Leu Val Arg Asp Ile Arg Arg 260 265 270

Arg Gly Lys Asn Lys Val Ala Ala Gln Asn Cys Arg Lys Arg Lys Leu 275 280 285

Glu Thr Ile Val Gln Leu Glu Arg Glu Leu Glu Arg Leu Thr Asn Glu 290 295 300

Arg Glu Arg Leu Leu Arg Ala Arg Gly Glu Ala Asp Arg Thr Leu Glu 305 310 315 320

Val Met Arg Gln Gln Leu Thr Glu Leu Tyr Arg Asp Ile Phe Gln His 325 330 335

Leu Arg Asp Glu Ser Gly Asn Ser Tyr Ser Pro Glu Glu Tyr Ala Leu 340 345 350

Gln Gln Ala Ala Asp Gly Thr Ile Phe Leu Val Pro Arg Gly Thr Lys 355 360 365

Met Glu Ala Thr Asp 370

<210> 2448

<211> 288

<212> PRT

<213> Homo sapiens

<400> 2448

Met Gln Ile Pro Gln Ala Pro Trp Pro Val Val Trp Ala Val Leu Gln 1 5 10 15

Leu Gly Trp Arg Pro Gly Trp Phe Leu Asp Ser Pro Asp Arg Pro Trp 20 25 30

Asn Pro Pro Thr Phe Phe Pro Ala Leu Leu Val Val Thr Glu Gly Asp 35 40 45

- Asn Ala Thr Phe Thr Cys Ser Phe Ser Asn Thr Ser Glu Ser Phe Val 50 55 60
- Leu Asn Trp Tyr Arg Met Ser Pro Ser Asn Gln Thr Asp Lys Leu Ala 65 70 75 80
- Ala Phe Pro Glu Asp Arg Ser Gln Pro Gly Gln Asp Cys Arg Phe Arg 85 90 95
- Val Thr Gln Leu Pro Asn Gly Arg Asp Phe His Met Ser Val Val Arg 100 105 110
- Ala Arg Arg Asn Asp Ser Gly Thr Tyr Leu Cys Gly Ala Ile Ser Leu 115 120 125
- Ala Pro Lys Ala Gln Ile Lys Glu Ser Leu Arg Ala Glu Leu Arg Val 130 135 140
- Thr Glu Arg Arg Ala Glu Val Pro Thr Ala His Pro Ser Pro Ser Pro 145 150 155 160
- Arg Pro Ala Gly Gln Phe Gln Thr Leu Val Val Gly Val Val Gly Gly
 165 170 175
- Leu Leu Gly Ser Leu Val Leu Leu Val Trp Val Leu Ala Val Ile Cys 180 185 190
- Ser Arg Ala Ala Arg Gly Thr Ile Gly Ala Arg Arg Thr Gly Gln Pro 195 200 205
- Leu Lys Glu Asp Pro Ser Ala Val Pro Val Phe Ser Val Asp Tyr Gly 210 215 220
- Glu Leu Asp Phe Gln Trp Arg Glu Lys Thr Pro Glu Pro Pro Val Pro 225 230 235 240
- Cys Val Pro Glu Gln Thr Glu Tyr Ala Thr Ile Val Phe Pro Ser Gly 245 250 255
- Met Gly Thr Ser Ser Pro Ala Arg Arg Gly Ser Ala Asp Gly Pro Arg 260 265 270

Ser Ala Gln Pro Leu Arg Pro Glu Asp Gly His Cys Ser Trp Pro Leu 280

<210> 2449

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2449

Met Ser Ser Ala Ala Gly Phe Cys Ala Ser Arg Pro Gly Leu Leu Phe 10

Leu Gly Leu Leu Leu Pro Leu Val Val Ala Phe Ala Ser Ala Glu

Ala Glu Glu Asp Gly Asp Leu Gln Cys Leu Cys Val Lys Thr Thr Ser

Gln Val Arg Pro Arg His Ile Thr Ser Leu Glu Val Ile Lys Ala Gly

Pro His Cys Pro Thr Ala Gln Leu Ile Ala Thr Leu Lys Asn Gly Arg

Lys Ile Cys Leu Asp Leu Gln Ala Pro Leu Tyr Lys Lys Ile Ile Lys

Lys Leu Leu Glu Ser 100

<210> 2450 <211> 706

<212> PRT

<213> Homo sapiens

<400> 2450

Met Ser Pro Phe Leu Arg Ile Gly Leu Ser Asn Phe Asp Cys Gly Ser 5

Cys Gln Ser Cys Gln Gly Glu Ala Val Asn Pro Tyr Cys Ala Val Leu 20

Val Lys Glu Tyr Val Glu Ser Glu Asn Gly Gln Met Tyr Ile Gln Lys 45 35

Lys Pro Thr Met Tyr Pro Pro Trp Asp Ser Thr Phe Asp Ala His Ile 50 55 60

Asn Lys Gly Arg Val Met Gln Ile Ile Val Lys Gly Lys Asn Val Asp
70 75 80

- Leu Ile Ser Glu Thr Thr Val Glu Leu Tyr Ser Leu Ala Glu Arg Cys 85 90 95
- Arg Lys Asn Asn Gly Lys Thr Glu Ile Trp Leu Glu Leu Lys Pro Gln
 100 105 110
- Gly Arg Met Leu Met Asn Ala Arg Tyr Phe Leu Glu Met Ser Asp Thr 115 120 125
- Lys Asp Met Asn Glu Phe Glu Thr Glu Gly Phe Phe Ala Leu His Gln 130 135 140
- Arg Arg Gly Ala Ile Lys Gln Ala Lys Val His His Val Lys Cys His 145 150 155 160
- Glu Phe Thr Ala Thr Phe Phe Pro Gln Pro Thr Phe Cys Ser Val Cys 165 170 175
- His Glu Phe Val Trp Gly Leu Asn Lys Gln Gly Tyr Gln Cys Arg Gln 180 185 190
- Cys Asn Ala Ala Ile His Lys Lys Cys Ile Asp Lys Val Ile Ala Lys 195 200 205
- Cys Thr Gly Ser Ala Ile Asn Ser Arg Glu Thr Met Phe His Lys Glu 210 215 220
- Arg Phe Lys Ile Asp Met Pro His Arg Phe Lys Val Tyr Asn Tyr Lys 235 230 235
- Ser Pro Thr Phe Cys Glu His Cys Gly Thr Leu Leu Trp Gly Leu Ala 245 250 255
- Arg Gln Gly Leu Lys Cys Asp Ala Cys Gly Met Asn Val His His Arg 260 265 270
- Cys Gln Thr Lys Val Ala Asn Leu Cys Gly Ile Asn Gln Lys Leu Met 275 280 285
- Ala Glu Ala Leu Ala Met Ile Glu Ser Thr Gln Gln Ala Arg Cys Leu 290 295 300

Arg Asp Thr Glu Gln Ile Phe Arg Glu Gly Pro Val Glu Ile Gly Leu 305 310 315 320

- Pro Cys Ser Ile Lys Asn Glu Ala Arg Pro Pro Cys Leu Pro Thr Pro 325 330 335
- Gly Lys Arg Glu Pro Gln Gly Ile Ser Trp Glu Ser Pro Leu Asp Glu 340 345 350
- Val Asp Lys Met Cys His Leu Pro Glu Pro Glu Leu Asn Lys Glu Arg 355 360 365
- Pro Ser Leu Gln Ile Lys Leu Lys Ile Glu Asp Phe Ile Leu His Lys 370 375 380
- Met Leu Gly Lys Gly Ser Phe Gly Lys Val Phe Leu Ala Glu Phe Lys 385 390 395 400
- Lys Thr Asn Gln Phe Phe Ala Ile Lys Ala Leu Lys Lys Asp Val Val 405 410 415
- Leu Met Asp Asp Val Glu Cys Thr Met Val Glu Lys Arg Val Leu 420 425 430
- Ser Leu Ala Trp Glu His Pro Phe Leu Thr His Met Phe Cys Thr Phe 435 440 445
- Gln Thr Lys Glu Asn Leu Phe Phe Val Met Glu Tyr Leu Asn Gly Gly 450 455 460
- Asp Leu Met Tyr His Ile Gln Ser Cys His Lys Phe Asp Leu Ser Arg 465 470 475 480
- Ala Thr Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Gln Phe Leu His
 485 490 495
- Ser Lys Gly Ile Val Tyr Arg Asp Leu Lys Leu Asp Asn Ile Leu Leu 500 505 510
- Asp Lys Asp Gly His Ile Lys Ile Ala Asp Phe Gly Met Cys Lys Glu 515 520 525
- Asn Met Leu Gly Asp Ala Lys Thr Asn Thr Phe Cys Gly Thr Pro Asp 530 540
- Tyr Ile Ala Pro Glu Ile Leu Leu Gly Gln Lys Tyr Asn His Ser Val

545 550 555 560

Asp Trp Trp Ser Phe Gly Val Leu Leu Tyr Glu Met Leu Ile Gly Gln 565 570 575

Ser Pro Phe His Gly Gln Asp Glu Glu Glu Leu Phe His Ser Ile Arg 580 585 590

Met Asp Asn Pro Phe Tyr Pro Arg Trp Leu Glu Lys Glu Ala Lys Asp 595 600 605

Leu Leu Val Lys Leu Phe Val Arg Glu Pro Glu Lys Arg Leu Gly Val 610 620

Arg Gly Asp Ile Arg Gln His Pro Leu Phe Arg Glu Ile Asn Trp Glu 625 630 635 640

Glu Leu Glu Arg Lys Glu Ile Asp Pro Pro Phe Arg Pro Lys Val Lys 645 650 655

Ser Pro Phe Asp Cys Ser Asn Phe Asp Lys Glu Phe Leu Asn Glu Lys 660 665 670

Pro Arg Leu Ser Phe Ala Asp Arg Ala Leu Ile Asn Ser Met Asp Gln 675 680 685

Asn Met Phe Arg Asn Phe Ser Phe Met Asn Pro Gly Met Glu Arg Leu 690 695 700

Ile Ser

<210> 2451

<211> 798

<212> PRT

<213> Homo sapiens

<400> 2451

Met Ala Trp Asp Met Cys Asn Gln Asp Ser Glu Ser Val Trp Ser Asp 1 10 15

Ile Glu Cys Ala Ala Leu Val Gly Glu Asp Gln Pro Leu Cys Pro Asp
20 25 30

Leu Pro Glu Leu Asp Leu Ser Glu Leu Asp Val Asn Asp Leu Asp Thr 35 40 45

Asp Ser Phe Leu Gly Gly Leu Lys Trp Cys Ser Asp Gln Ser Glu Ile 55 Ile Ser Asn Gln Tyr Asn Asn Glu Pro Ser Asn Ile Phe Glu Lys Ile Asp Glu Glu Asn Glu Ala Asn Leu Leu Ala Val Leu Thr Glu Thr Leu Asp Ser Leu Pro Val Asp Glu Asp Gly Leu Pro Ser Phe Asp Ala Leu Thr Asp Gly Asp Val Thr Thr Asp Asn Glu Ala Ser Pro Ser Ser Met 115 Pro Asp Gly Thr Pro Pro Pro Gln Glu Ala Glu Glu Pro Ser Leu Leu 135 130 Lys Lys Leu Leu Ala Pro Ala Asn Thr Gln Leu Ser Tyr Asn Glu 150 Cys Ser Gly Leu Ser Thr Gln Asn His Ala Asn His Asn His Arg Ile 165 170 Arg Thr Asn Pro Ala Ile Val Lys Thr Glu Asn Ser Trp Ser Asn Lys 185 180 Ala Lys Ser Ile Cys Gln Gln Gln Lys Pro Gln Arg Arg Pro Cys Ser 195 200 Glu Leu Leu Lys Tyr Leu Thr Thr Asn Asp Asp Pro Pro His Thr Lys 215 220

- Pro Thr Glu Asn Arg Asn Ser Ser Arg Asp Lys Cys Thr Ser Lys Lys 225 230 235 240
- Lys Ser His Thr Gln Ser Gln Ser Gln His Leu Gln Ala Lys Pro Thr 245 250 255
- Thr Leu Ser Leu Pro Leu Thr Pro Glu Ser Pro Asn Asp Pro Lys Gly 260 265 270
- Ser Pro Phe Glu Asn Lys Thr Ile Glu Arg Thr Leu Ser Val Glu Leu 275 280 285

Ser Gly Thr Ala Gly Leu Thr Pro Pro Thr Thr Pro Pro His Lys Ala 290 295 300

- Asn Gln Asp Asn Pro Phe Arg Ala Ser Pro Lys Leu Lys Ser Ser Cys 305 310 315 320
- Lys Thr Val Val Pro Pro Pro Ser Lys Lys Pro Arg Tyr Ser Glu Ser 325 330 335
- Ser Gly Thr Gln Gly Asn Asn Ser Thr Lys Lys Gly Pro Glu Gln Ser 340 345 350
- Glu Leu Tyr Ala Gln Leu Ser Lys Ser Ser Val Leu Thr Gly Gly His 355 360 365
- Glu Glu Arg Lys Thr Lys Arg Pro Ser Leu Arg Leu Phe Gly Asp His 370 375 380
- Asp Tyr Cys Gln Ser Ile Asn Ser Lys Thr Glu Ile Leu Ile Asn Ile 385 390 395 400
- Ser Gln Glu Leu Gln Asp Ser Arg Gln Leu Glu Asn Lys Asp Val Ser 405 410 415
- Ser Asp Trp Gln Gly Gln Ile Cys Ser Ser Thr Asp Ser Asp Gln Cys 420 425 430
- Tyr Leu Arg Glu Thr Leu Glu Ala Ser Lys Gln Val Ser Pro Cys Ser 435 440 445
- Thr Arg Lys Gln Leu Gln Asp Gln Glu Ile Arg Ala Glu Leu Asn Lys 450 455 460
- His Phe Gly His Pro Ser Gln Ala Val Phe Asp Asp Glu Ala Asp Lys
 465 470 475 480
- Thr Gly Glu Leu Arg Asp Ser Asp Phe Ser Asn Glu Gln Phe Ser Lys
 485 490 495
- Leu Pro Met Phe Ile Asn Ser Gly Leu Ala Met Asp Gly Leu Phe Asp 500 505 510
- Asp Ser Glu Asp Glu Ser Asp Lys Leu Ser Tyr Pro Trp Asp Gly Thr 515 520 525
- Gln Ser Tyr Ser Leu Phe Asn Val Ser Pro Ser Cys Ser Ser Phe Asn

530

535 540

Ser Pro Cys Arg Asp Ser Val Ser Pro Pro Lys Ser Leu Phe Ser Gln 545 550 555 560

Arg Pro Gln Arg Met Arg Ser Arg Ser Arg Ser Phe Ser Arg His Arg 565 570 575

Ser Cys Ser Arg Ser Pro Tyr Ser Arg Ser Arg Ser Arg Ser Pro Gly
580 585 590

Ser Arg Ser Ser Ser Arg Ser Cys Tyr Tyr Tyr Glu Ser Ser His Tyr 595 600 605

Arg His Arg Thr His Arg Asn Ser Pro Leu Tyr Val Arg Ser Arg Ser 610 615 620

Arg Ser Pro Tyr Ser Arg Arg Pro Arg Tyr Asp Ser Tyr Glu Glu Tyr 625 630 635 640

Gln His Glu Arg Leu Lys Arg Glu Glu Tyr Arg Arg Glu Tyr Glu Lys 645 650 655

Arg Glu Ser Glu Arg Ala Lys Gln Arg Glu Arg Gln Arg Gln Lys Ala 660 665 670

Ile Glu Glu Arg Arg Val Ile Tyr Val Gly Lys Ile Arg Pro Asp Thr 675 680 685

Thr Arg Thr Glu Leu Arg Asp Arg Phe Glu Val Phe Gly Glu Ile Glu 690 695 700

Glu Cys Thr Val Asn Leu Arg Asp Asp Gly Asp Ser Tyr Gly Phe Ile 705 710 715 720

Thr Tyr Arg Tyr Thr Cys Asp Ala Phe Ala Ala Leu Glu Asn Gly Tyr
725 730 735

Thr Leu Arg Arg Ser Asn Glu Thr Asp Phe Glu Leu Tyr Phe Cys Gly 740 745 750

Arg Lys Gln Phe Phe Lys Ser Asn Tyr Ala Asp Leu Asp Ser Asn Ser 755 760 765

Asp Asp Phe Asp Pro Ala Ser Thr Lys Ser Lys Tyr Asp Ser Leu Asp 770 775 780

Phe Asp Ser Leu Leu Lys Glu Ala Gln Arg Ser Leu Arg Arg 795 790 785

- <210> 2452

- <211> 1043 <212> PRT <213> Homo sapiens
- <400> 2452
- Met Ala Ala Ser Phe Pro Pro Thr Leu Gly Leu Ser Ser Ala Pro Asp 5 10
- Glu Ile Gln His Pro His Ile Lys Phe Ser Glu Trp Lys Phe Lys Leu
- Phe Arg Val Arg Ser Phe Glu Lys Thr Pro Glu Glu Ala Gln Lys Glu 35 40
- Lys Lys Asp Ser Phe Glu Gly Lys Pro Ser Leu Glu Gln Ser Pro Ala 55 50
- Val Leu Asp Lys Ala Asp Gly Gln Lys Pro Val Pro Thr Gln Pro Leu 70
- Leu Lys Ala His Pro Lys Phe Ser Lys Lys Phe His Asp Asn Glu Lys 85 90
- Ala Arg Gly Lys Ala Ile His Gln Ala Asn Leu Arg His Leu Cys Arg 100 105
- Ile Cys Gly Asn Ser Phe Arg Ala Asp Glu His Asn Arg Arg Tyr Pro 120
- Val His Gly Pro Val Asp Gly Lys Thr Leu Gly Leu Leu Arg Lys Lys
- Glu Lys Arg Ala Thr Ser Trp Pro Asp Leu Ile Ala Lys Val Phe Arg 150
- Ile Asp Val Lys Ala Asp Val Asp Ser Ile His Pro Thr Glu Phe Cys 170 165
- His Asn Cys Trp Ser Ile Met His Arg Lys Phe Ser Ser Ala Pro Cys 180 185

Glu Val Tyr Phe Pro Arg Asn Val Thr Met Glu Trp His Pro His Thr 195 200 205

- Pro Ser Cys Asp Ile Cys Asn Thr Ala Arg Arg Gly Leu Lys Arg Lys 210 215 220
- Ser Leu Gln Pro Asn Leu Gln Leu Ser Lys Lys Leu Lys Thr Val Leu 225 230 235 235
- Asp Gln Ala Arg Gln Ala Arg Gln Arg Lys Arg Arg Ala Gln Ala Arg 245 250 255
- Ile Ser Ser Lys Asp Val Met Lys Lys Ile Ala Asn Cys Ser Lys Ile
 260 265 270
- His Leu Ser Thr Lys Leu Leu Ala Val Asp Phe Pro Glu His Phe Val 275 280 285
- Lys Ser Ile Ser Cys Gln Ile Cys Glu His Ile Leu Ala Asp Pro Val 290 295 300
- Glu Thr Asn Cys Lys His Val Phe Cys Arg Val Cys Ile Leu Arg Cys 305 310 315 320
- Leu Lys Val Met Gly Ser Tyr Cys Pro Ser Cys Arg Tyr Pro Cys Phe 325 330 335
- Pro Thr Asp Leu Glu Ser Pro Val Lys Ser Phe Leu Ser Val Leu Asn 340 345 350
- Ser Leu Met Val Lys Cys Pro Ala Lys Glu Cys Asn Glu Glu Val Ser 355 360 365
- Leu Glu Lys Tyr Asn His His Ile Ser Ser His Lys Glu Ser Lys Glu 370 375 380
- Ile Phe Val His Ile Asn Lys Gly Gly Arg Pro Arg Gln His Leu Leu 385 390 395 400
- Ser Leu Thr Arg Arg Ala Gln Lys His Arg Leu Arg Glu Leu Lys Leu 405 410 415
- Gln Val Lys Ala Phe Ala Asp Lys Glu Glu Gly Gly Asp Val Lys Ser 420 425 430
- Val Cys Met Thr Leu Phe Leu Leu Ala Leu Arg Ala Arg Asn Glu His

435 440 445

Arg Gln Ala Asp Glu Leu Glu Ala Ile Met Gln Gly Lys Gly Ser Gly
450 460

Leu Gln Pro Ala Val Cys Leu Ala Ile Arg Val Asn Thr Phe Leu Ser 465 470 475 480

Cys Ser Gln Tyr His Lys Met Tyr Arg Thr Val Lys Ala Ile Thr Gly
485 490 495

Arg Gln Ile Phe Gln Pro Leu His Ala Leu Arg Asn Ala Glu Lys Val 500 505 510

Leu Leu Pro Gly Tyr His His Phe Glu Trp Gln Pro Pro Leu Lys Asn 515 520 525

Val Ser Ser Ser Thr Asp Val Gly Ile Ile Asp Gly Leu Ser Gly Leu 530 535 540

Ser Ser Ser Val Asp Asp Tyr Pro Val Asp Thr Ile Ala Lys Arg Phe 545 550 555 560

Arg Tyr Asp Ser Ala Leu Val Ser Ala Leu Met Asp Met Glu Glu Asp
565 570 575

Ile Leu Glu Gly Met Arg Ser Gln Asp Leu Asp Asp Tyr Leu Asn Gly 580 585 590

Pro Phe Thr Val Val Val Lys Glu Ser Cys Asp Gly Met Gly Asp Val 595 600 605

Ser Glu Lys His Gly Ser Gly Pro Val Val Pro Glu Lys Ala Val Arg 610 615 620

Phe Ser Phe Thr Ile Met Lys Ile Thr Ile Ala His Ser Ser Gln Asn 625 630 635 640

Val Lys Val Phe Glu Glu Ala Lys Pro Asn Ser Glu Leu Cys Cys Lys 645 650 655

Pro Leu Cys Leu Met Leu Ala Asp Glu Ser Asp His Glu Thr Leu Thr 660 665 670

Ala Ile Leu Ser Pro Leu Ile Ala Glu Arg Glu Ala Met Lys Ser Ser 675 680 685

- Glu Leu Met Leu Glu Leu Gly Gly Ile Leu Arg Thr Phe Lys Phe Ile 690 695 700
- Phe Arg Gly Thr Gly Tyr Asp Glu Lys Leu Val Arg Glu Val Glu Gly 705 710 715 720
- Leu Glu Ala Ser Gly Ser Val Tyr Ile Cys Thr Leu Cys Asp Ala Thr 725 730 735
- Arg Leu Glu Ala Ser Gln Asn Leu Val Phe His Ser Ile Thr Arg Ser
- His Ala Glu Asn Leu Glu Arg Tyr Glu Val Trp Arg Ser Asn Pro Tyr 755 760 765
- His Glu Ser Val Glu Glu Leu Arg Asp Arg Val Lys Gly Val Ser Ala
 770 775 780
- Lys Pro Phe Ile Glu Thr Val Pro Ser Ile Asp Ala Leu His Cys Asp 785 790 795 800
- Ile Gly Asn Ala Ala Glu Phe Tyr Lys Ile Phe Gln Leu Glu Ile Gly 805 810 815
- Glu Val Tyr Lys Asn Pro Asn Ala Ser Lys Glu Glu Arg Lys Arg Trp 820 825 830
- Gln Ala Thr Leu Asp Lys His Leu Arg Lys Lys Met Asn Leu Lys Pro 835 840 845
- Ile Met Arg Met Asn Gly Asn Phe Ala Arg Lys Leu Met Thr Lys Glu 850 855 860
- Thr Val Asp Ala Val Cys Glu Leu Ile Pro Ser Glu Glu Arg His Glu 865 870 875 880
- Ala Leu Arg Glu Leu Met Asp Leu Tyr Leu Lys Met Lys Pro Val Trp 885 890 895
- Arg Ser Ser Cys Pro Ala Lys Glu Cys Pro Glu Ser Leu Cys Gln Tyr 900 905 910
- Ser Phe Asn Ser Gln Arg Phe Ala Glu Leu Leu Ser Thr Lys Phe Lys 915 920 925

Tyr Arg Tyr Glu Gly Lys Ile Thr Asn Tyr Phe His Lys Thr Leu Ala 930 940

His Val Pro Glu Ile Ile Glu Arg Asp Gly Ser Ile Gly Ala Trp Ala 945 950 955 960

Ser Glu Gly Asn Glu Ser Gly Asn Lys Leu Phe Arg Arg Phe Arg Lys 965 970 975

Met Asn Ala Arg Gln Ser Lys Cys Tyr Glu Met Glu Asp Val Leu Lys 980 985 990

His His Trp Leu Tyr Thr Ser Lys Tyr Leu Gln Lys Phe Met Asn Ala 995 1000 1005

His Asn Ala Leu Lys Thr Ser Gly Phe Thr Met Asn Pro Gln Ala 1010 1015 1020

Ser Leu Gly Asp Pro Leu Gly Ile Glu Asp Ser Leu Glu Ser Gln 1025 1030 1035

Asp Ser Met Glu Phe 1040

<210> 2453

<211> 527

<212> PRT

<213> Homo sapiens

<400> 2453

Met Ser Leu Gln Met Val Thr Val Ser Asn Asn Ile Ala Leu Ile Gln 1 5 10 15

Pro Gly Phe Ser Leu Met Asn Phe Asp Gly Gln Val Phe Phe Gly 20 25 30

Gln Lys Gly Trp Pro Lys Arg Ser Cys Pro Thr Gly Val Phe His Leu 35 40 45

Asp Val Lys His Asn His Val Lys Leu Lys Pro Thr Ile Phe Ser Lys 50 55 60

Asp Ser Cys Tyr Leu Pro Pro Leu Arg Tyr Pro Ala Thr Cys Thr Phe 65 70 75 80

Lys Gly Ser Leu Glu Ser Glu Lys His Gln Tyr Ile Ile His Gly Gly

85 90 95

Lys Thr Pro Asn Asn Glu Val Ser Asp Lys Ile Tyr Val Met Ser Ile 100 105 110

Val Cys Lys Asn Asn Lys Lys Val Thr Phe Arg Cys Thr Glu Lys Asp 115 120 125

Leu Val Gly Asp Val Pro Glu Ala Arg Tyr Gly His Ser Ile Asn Val 130 135 140

Val Tyr Ser Arg Gly Lys Ser Met Gly Ala Leu Phe Gly Gly Arg Ser 145 150 155 160

Tyr Met Pro Ser Thr His Arg Thr Thr Glu Lys Trp Asn Ser Val Ala 165 170 175

Asp Cys Leu Pro Cys Val Phe Leu Val Asp Phe Glu Phe Gly Cys Ala 180 185 190

Thr Ser Tyr Ile Leu Pro Glu Leu Gln Asp Gly Leu Ser Phe His Val 195 200 205

Ser Ile Ala Lys Asn Asp Thr Ile Tyr Ile Leu Gly Gly His Ser Leu 210 215 220

Ala Asn Asn Ile Arg Pro Ala Asn Leu Tyr Arg Ile Arg Val Asp Leu 225 230 235 240

Pro Leu Gly Ser Pro Ala Val Asn Cys Thr Val Leu Pro Gly Gly Ile 245 250 255

Ser Val Ser Ser Ala Ile Leu Thr Gln Thr Asn Asn Asp Glu Phe Val 260 265 270

Ile Val Gly Gly Tyr Gln Leu Glu Asn Gln Lys Arg Met Ile Cys Asn 275 280 285

Ile Ile Ser Leu Glu Asp Asn Lys Ile Glu Ile Arg Glu Met Glu Thr 290 295 300

Pro Asp Trp Thr Pro Asp Ile Lys His Ser Lys Ile Trp Phe Gly Ser 305 310 315 320

Asn Thr Gly Asn Gly Thr Val Phe Leu Gly Ile Pro Gly Asp Asn Lys 325 330 335

Gln Val Val Ser Glu Gly Phe Tyr Phe Tyr Met Leu Lys Cys Ala Glu

Asp Asp Thr Asn Glu Glu Gln Thr Thr Phe Thr Asn Ser Gln Thr Ser 360

Thr Glu Asp Pro Gly Asp Ser Thr Pro Phe Glu Asp Ser Glu Glu Phe 375 380

Cys Phe Ser Ala Glu Ala Asn Ser Phe Asp Gly Asp Asp Glu Phe Asp 390 395

Thr Tyr Asn Glu Asp Asp Glu Glu Asp Glu Ser Glu Thr Gly Tyr Trp 405 410

Ile Thr Cys Cys Pro Thr Cys Asp Val Asp Ile Asn Thr Trp Val Pro 425

Phe Tyr Ser Thr Glu Leu Asn Lys Pro Ala Met Ile Tyr Cys Ser His 440 435

Gly Asp Gly His Trp Val His Ala Gln Cys Met Asp Leu Ala Glu Arg 450 455

Thr Leu Ile His Leu Ser Ala Gly Ser Asn Lys Tyr Tyr Cys Asn Glu 465 470 475

His Val Glu Ile Ala Arg Ala Leu His Thr Pro Gln Arg Val Leu Pro 490 485

Leu Lys Lys Pro Pro Met Lys Ser Leu Arg Lys Lys Gly Ser Gly Lys 505 500

Ile Leu Thr Pro Ala Lys Lys Ser Phe Leu Arg Arg Leu Phe Asp 520 515

<210> 2454

<211> 93

<212> PRT <213> Homo sapiens

<400> 2454

Met Asn Ala Lys Val Val Val Leu Val Leu Val Leu Thr Ala Leu 10

Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30

Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys 35 40 45

Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys 50 55 60

Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln 65 70 75 80

Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met 85 90

<210> 2455

<211> 277

<212> PRT

<213> Homo sapiens

<400> 2455

Met Cys Val Gly Ala Arg Arg Leu Gly Arg Gly Pro Cys Ala Ala Leu 1 10 15

Leu Leu Gly Leu Gly Leu Ser Thr Val Thr Gly Leu His Cys Val 20 25 30

Gly Asp Thr Tyr Pro Ser Asn Asp Arg Cys Cys His Glu Cys Arg Pro 35 40 45

Gly Asn Gly Met Val Ser Arg Cys Ser Arg Ser Gln Asn Thr Val Cys 50 55 60

Arg Pro Cys Gly Pro Gly Phe Tyr Asn Asp Val Val Ser Ser Lys Pro 65 70 75 80

Cys Lys Pro Cys Thr Trp Cys Asn Leu Arg Ser Gly Ser Glu Arg Lys 85 90 95

Gln Leu Cys Thr Ala Thr Gln Asp Thr Val Cys Arg Cys Arg Ala Gly 100 105 110

Thr Gln Pro Leu Asp Ser Tyr Lys Pro Gly Val Asp Cys Ala Pro Cys 115 120 125

Pro Pro Gly His Phe Ser Pro Gly Asp Asn Gln Ala Cys Lys Pro Trp 130 135 140

Thr Asn Cys Thr Leu Ala Gly Lys His Thr Leu Gln Pro Ala Ser Asn 145 150 155 160

Ser Ser Asp Ala Ile Cys Glu Asp Arg Asp Pro Pro Ala Thr Gln Pro 165 170 175

Gln Glu Thr Gln Gly Pro Pro Ala Arg Pro Ile Thr Val Gln Pro Thr 180 185 190

Glu Ala Trp Pro Arg Thr Ser Gln Gly Pro Ser Thr Arg Pro Val Glu 195 200 205

Val Pro Gly Gly Arg Ala Val Ala Ala Ile Leu Gly Leu Gly Leu Val 210 215 220

Leu Gly Leu Leu Gly Pro Leu Ala Ile Leu Leu Ala Leu Tyr Leu Leu 225 230 235 240

Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly 245 250 255

Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser 260 265 270

Thr Leu Ala Lys Ile 275

<210> 2456

<211> 183

<212> PRT

<213> Homo sapiens

<400> 2456

Met Glu Arg Val Gln Pro Leu Glu Glu Asn Val Gly Asn Ala Ala Arg

1 10 15

Pro Arg Phe Glu Arg Asn Lys Leu Leu Leu Val Ala Ser Val Ile Gln 20 25 30

Gly Leu Gly Leu Leu Cys Phe Thr Tyr Ile Cys Leu His Phe Ser 35 40 45

Ala Leu Gln Val Ser His Arg Tyr Pro Arg Ile Gln Ser Ile Lys Val 50 55 60

Gln Phe Thr Glu Tyr Lys Lys Glu Lys Gly Phe Ile Leu Thr Ser Gln 65 70 75 80

Lys Glu Asp Glu Ile Met Lys Val Gln Asn Asn Ser Val Ile Ile Asn 85 90 95

Cys Asp Gly Phe Tyr Leu Ile Ser Leu Lys Gly Tyr Phe Ser Gln Glu 100 105 110

Val Asn Ile Ser Leu His Tyr Gln Lys Asp Glu Glu Pro Leu Phe Gln 115 120 125

Leu Lys Lys Val Arg Ser Val Asn Ser Leu Met Val Ala Ser Leu Thr 130 135 140

Tyr Lys Asp Lys Val Tyr Leu Asn Val Thr Thr Asp Asn Thr Ser Leu 145 150 155 160

Asp Asp Phe His Val Asn Gly Gly Glu Leu Ile Leu Ile His Gln Asn 165 170 175

Pro Gly Glu Phe Cys Val Leu 180

<210> 2457

<211> 275

<212> PRT

<213> Homo sapiens

<400> 2457

Met Leu Ser Leu Leu Leu Leu Ala Leu Pro Val Leu Ala Ser Arg Ala 1 5 10 15

Tyr Ala Ala Pro Ala Pro Val Gln Ala Leu Gln Gln Ala Gly Ile Val

Gly Glu Glu Ala Pro Arg Ser Lys Trp Pro Trp Gln Val Ser Leu
35 40 45

Arg Val Arg Asp Arg Tyr Trp Met His Phe Cys Gly Gly Ser Leu Ile 50 55 60

His Pro Gln Trp Val Leu Thr Ala Ala His Cys Leu Gly Pro Asp Val 65 70 75 80

Lys Asp Leu Ala Thr Leu Arg Val Gln Leu Arg Glu Gln His Leu Tyr 85 90 95

Tyr Gln Asp Gln Leu Leu Pro Val Ser Arg Ile Ile Val His Pro Gln
100 105 110

Phe Tyr Ile Ile Gln Thr Gly Ala Asp Ile Ala Leu Leu Glu Leu Glu 115 120 125

Glu Pro Val Asn Ile Ser Ser Arg Val His Thr Val Met Leu Pro Pro 130 135 140

Ala Ser Glu Thr Phe Pro Pro Gly Met Pro Cys Trp Val Thr Gly Trp 145 150 155 160

Gly Asp Val Asp Asn Asp Glu Pro Leu Pro Pro Pro Phe Pro Leu Lys
165 170 175

Gln Val Lys Val Pro Ile Met Glu Asn His Ile Cys Asp Ala Lys Tyr 180 185 190

His Leu Gly Ala Tyr Thr Gly Asp Asp Val Arg Ile Ile Arg Asp Asp 195 200 205

Met Leu Cys Ala Gly Asn Ser Gln Arg Asp Ser Cys Lys Gly Asp Ser 210 215 220

Gly Gly Pro Leu Val Cys Lys Val Asn Gly Thr Trp Leu Gln Ala Gly 225 230 235 240

Val Val Ser Trp Asp Glu Gly Cys Ala Gln Pro Asn Arg Pro Gly Ile 245 250 255

Tyr Thr Arg Val Thr Tyr Tyr Leu Asp Trp Ile His His Tyr Val Pro 260 265 270

Lys Lys Pro 275

<210> 2458

<211> 363

<212> PRT

<213> Homo sapiens

<400> 2458

Met Ala Gln Thr Pro Ala Phe Asp Lys Pro Lys Val Glu Leu His Val 1 5 10 15

His Leu Asp Gly Ser Ile Lys Pro Glu Thr Ile Leu Tyr Tyr Gly Arg

- Arg Arg Gly Ile Ala Leu Pro Ala Asn Thr Ala Glu Gly Leu Leu Asn 35 40 45
- Val Ile Gly Met Asp Lys Pro Leu Thr Leu Pro Asp Phe Leu Ala Lys 50 55 60
- Phe Asp Tyr Tyr Met Pro Ala Ile Ala Gly Cys Arg Glu Ala Ile Lys 65 70 75 80
- Arg Ile Ala Tyr Glu Phe Val Glu Met Lys Ala Lys Glu Gly Val Val 85 90 95
- Tyr Val Glu Val Arg Tyr Ser Pro His Leu Leu Ala Asn Ser Lys Val
- Glu Pro Ile Pro Trp Asn Gln Ala Glu Gly Asp Leu Thr Pro Asp Glu 115 120 125
- Val Val Ala Leu Val Gly Gln Gly Leu Gln Glu Gly Glu Arg Asp Phe 130 135 140
- Gly Val Lys Ala Arg Ser Ile Leu Cys Cys Met Arg His Gln Pro Asn 145 150 155 160
- Trp Ser Pro Lys Val Val Glu Leu Cys Lys Asn Tyr Gln Gln Gln Thr
 165 170 175
- Val Val Ala Ile Asp Leu Ala Gly Asp Glu Thr Ile Pro Gly Ser Ser 180 185 190
- Leu Leu Pro Gly His Val Gln Ala Tyr Gln Glu Ala Val Lys Ser Gly
 195 200 205
- Ile His Arg Thr Val His Ala Gly Glu Val Gly Ser Ala Glu Val Val 210 215 220
- Lys Glu Ala Val Asp Ile Leu Lys Thr Glu Arg Leu Gly His Gly Tyr 225 230 235 240
- His Thr Leu Glu Asp Gln Ala Leu Tyr Asn Arg Leu Arg Gln Glu Asn 245 250 255
- Met His Phe Glu Ile Cys Pro Trp Ser Ser Tyr Leu Thr Gly Ala Trp

260 265 270

Lys Pro Asp Thr Glu His Ala Val Ile Arg Leu Lys Asn Asp Gln Ala 275 280 285

Asn Tyr Ser Leu Asn Thr Asp Asp Pro Leu Ile Phe Lys Ser Thr Leu 290 295 300

Asp Thr Asp Tyr Gln Met Thr Lys Arg Asp Met Gly Phe Thr Glu Glu 305 310 315 320

Glu Phe Lys Arg Leu Asn Ile Asn Ala Ala Lys Ser Ser Phe Leu Pro 325 330 335

Glu Asp Glu Lys Arg Glu Leu Leu Asp Leu Leu Tyr Lys Ala Tyr Gly 340 345 350

Met Pro Pro Ser Ala Ser Ala Gly Gln Asn Leu 355 360

<210> 2459

<211> 443

<212> PRT

<213> Homo sapiens

<400> 2459

Met Asp Phe Pro Cys Leu Trp Leu Gly Leu Leu Pro Leu Val Ala 1 5 10 15

Ala Leu Asp Phe Asn Tyr His Arg Gln Glu Gly Met Glu Ala Phe Leu 20 25 30

Lys Thr Val Ala Gln Asn Tyr Ser Ser Val Thr His Leu His Ser Ile 35 40 45

Gly Lys Ser Val Lys Gly Arg Asn Leu Trp Val Leu Val Val Gly Arg 50 55 60

Phe Pro Lys Glu His Arg Ile Gly Ile Pro Glu Phe Lys Tyr Val Ala 65 70 75 80

Asn Met His Gly Asp Glu Thr Val Gly Arg Glu Leu Leu Leu His Leu 85 90 95

Ile Asp Tyr Leu Val Thr Ser Asp Gly Lys Asp Pro Glu Ile Thr Asn 100 105 110

Leu Ile Asn Ser Thr Arg Ile His Ile Met Pro Ser Met Asn Pro Asp 115 120 125

- Gly Phe Glu Ala Val Lys Lys Pro Asp Cys Tyr Tyr Ser Ile Gly Arg 130 135 140
- Glu Asn Tyr Asn Gln Tyr Asp Leu Asn Arg Asn Phe Pro Asp Ala Phe 145 150 155 160
- Glu Tyr Asn Asn Val Ser Arg Gln Pro Glu Thr Val Ala Val Met Lys 165 170 175
- Trp Leu Lys Thr Glu Thr Phe Val Leu Ser Ala Asn Leu His Gly Gly
 180 185 190
- Ala Leu Val Ala Ser Tyr Pro Phe Asp Asn Gly Val Gln Ala Thr Gly
 195 200 205
- Ala Leu Tyr Ser Arg Ser Leu Thr Pro Asp Asp Val Phe Gln Tyr 210 215 220
- Leu Ala His Thr Tyr Ala Ser Arg Asn Pro Asn Met Lys Lys Gly Asp 225 230 235 240
- Glu Cys Lys Asn Lys Met Asn Phe Pro Asn Gly Val Thr Asn Gly Tyr 245 250 255
- Ser Trp Tyr Pro Leu Gln Gly Gly Met Gln Asp Tyr Asn Tyr Ile Trp 260 265 270
- Ala Gln Cys Phe Glu Ile Thr Leu Glu Leu Ser Cys Cys Lys Tyr Pro 275 280 285
- Arg Glu Glu Lys Leu Pro Ser Phe Trp Asn Asn Asn Lys Ala Ser Leu 290 295 300
- Ile Glu Tyr Ile Lys Gln Val His Leu Gly Val Lys Gly Gln Val Phe 305 310 315 320
- Asp Gln Asn Gly Asn Pro Leu Pro Asn Val Ile Val Glu Val Gln Asp 325 330 335
- Arg Lys His Ile Cys Pro Tyr Arg Thr Asn Lys Tyr Gly Glu Tyr Tyr 340 345 350

Leu Leu Leu Pro Gly Ser Tyr Ile Ile Asn Val Thr Val Pro Gly 355 360 365

His Asp Pro His Ile Thr Lys Val Ile Ile Pro Glu Lys Ser Gln Asn 370 375 380

Phe Ser Ala Leu Lys Lys Asp Ile Leu Leu Pro Phe Gln Gly Gln Leu 385 390 395 400

Asp Ser Ile Pro Val Ser Asn Pro Ser Cys Pro Met Ile Pro Leu Tyr 405 410 415

Arg Asn Leu Pro Asp His Ser Ala Ala Thr Lys Pro Ser Leu Phe Leu 420 425 430

Phe Leu Val Ser Leu Leu His Ile Phe Phe Lys 435 440

<210> 2460

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2460

Met Trp Leu Gln Ser Leu Leu Leu Leu Gly Thr Val Ala Cys Ser Ile 5 10 15

Ser Ala Pro Ala Arg Ser Pro Ser Pro Ser Thr Gln Pro Trp Glu His 20 25 30

Val Asn Ala Ile Gln Glu Ala Arg Arg Leu Leu Asn Leu Ser Arg Asp 35 40 45

Thr Ala Ala Glu Met Asn Glu Thr Val Glu Val Ile Ser Glu Met Phe 50 55 60

Asp Leu Gln Glu Pro Thr Cys Leu Gln Thr Arg Leu Glu Leu Tyr Lys 70 75 80

Gln Gly Leu Arg Gly Ser Leu Thr Lys Leu Lys Gly Pro Leu Thr Met 85 90 95

Met Ala Ser His Tyr Lys Gln His Cys Pro Pro Thr Pro Glu Thr Ser

Cys Ala Thr Gln Ile Ile Thr Phe Glu Ser Phe Lys Glu Asn Leu Lys 115 120 125

Asp Phe Leu Leu Val Ile Pro Phe Asp Cys Trp Glu Pro Val Gln Glu 130 135 140

<210> 2461

<211> 204

<212> PRT

<213> Homo sapiens

<400> 2461

Met Ala Gly Pro Ala Thr Gln Ser Pro Met Lys Leu Met Ala Leu Gln 1 10 15

Leu Leu Euro His Ser Ala Leu Trp Thr Val Gln Glu Ala Thr Pro 20 25 30

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 35 40 45

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 50 55 60

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu 65 70 75 80

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 85 90 95

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 100 105 110

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 115 120 125

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 130 135 140

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 145 150 155 160

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 165 170 175

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 180 185 190

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 195 200

<210> 2462

<211> 224

<212> PRT

<213> Homo sapiens

<400> 2462

Met Glu Lys Leu Cys Phe Leu Val Leu Thr Ser Leu Ser His Ala 1 5 10 15

Phe Gly Gln Thr Asp Met Ser Arg Lys Ala Phe Val Phe Pro Lys Glu 20 25 30

Ser Asp Thr Ser Tyr Val Ser Leu Lys Ala Pro Leu Thr Lys Pro Leu 35 40 45

Lys Ala Phe Thr Val Cys Leu His Phe Tyr Thr Glu Leu Ser Ser Thr 50 55 60

Arg Gly Thr Val Phe Ser Arg Met Pro Pro Arg Asp Lys Thr Met Arg 65 70 75 80

Phe Phe Ile Phe Trp Ser Lys Asp Ile Gly Tyr Ser Phe Thr Val Gly 85 90 95

Gly Ser Glu Ile Leu Phe Glu Val Pro Glu Val Thr Val Ala Pro Val 100 105 110

His Ile Cys Thr Ser Trp Glu Ser Ala Ser Gly Ile Val Glu Phe Trp 115 120 125

Val Asp Gly Lys Pro Arg Val Arg Lys Ser Leu Lys Lys Gly Tyr Thr 130 135 140

Val Gly Ala Glu Ala Ser Ile Ile Leu Gly Gln Glu Gln Asp Ser Phe 145 150 155 160

Gly Gly Asn Phe Glu Gly Ser Gln Ser Leu Val Gly Asp Ile Gly Asn 165 170 175

Val Asn Met Trp Asp Phe Val Leu Ser Pro Asp Glu Ile Asn Thr Ile 180 185 190

Tyr Leu Gly Gly Pro Phe Ser Pro Asn Val Leu Asn Trp Arg Ala Leu 195 200 205

Lys Tyr Glu Val Gln Gly Glu Val Phe Thr Lys Pro Gln Leu Trp Pro 210 215 220

<210> 2463

<211> 993

<212> PRT

<213> Homo sapiens

<400> 2463

Met Pro Ala Leu Ala Arg Asp Ala Gly Thr Val Pro Leu Leu Val Val 1 5 10 15

Phe Ser Ala Met Ile Phe Gly Thr Ile Thr Asn Gln Asp Leu Pro Val 20 25 30

Ile Lys Cys Val Leu Ile Asn His Lys Asn Asn Asp Ser Ser Val Gly
35 40 45

Lys Ser Ser Ser Tyr Pro Met Val Ser Glu Ser Pro Glu Asp Leu Gly 50 55 60

Cys Ala Leu Arg Pro Gln Ser Ser Gly Thr Val Tyr Glu Ala Ala 65 70 75 80

Val Glu Val Asp Val Ser Ala Ser Ile Thr Leu Gln Val Leu Val Asp 85 90 95

Ala Pro Gly Asn Ile Ser Cys Leu Trp Val Phe Lys His Ser Ser Leu 100 105 110

Asn Cys Gln Pro His Phe Asp Leu Gln Asn Arg Gly Val Val Ser Met
115 120 125

Val Ile Leu Lys Met Thr Glu Thr Gln Ala Gly Glu Tyr Leu Leu Phe 130 135 140

Ile Gln Ser Glu Ala Thr Asn Tyr Thr Ile Leu Phe Thr Val Ser Ile 145 150 155 160

Arg Asn Thr Leu Leu Tyr Thr Leu Arg Arg Pro Tyr Phe Arg Lys Met 165 170 175

Glu Asn Gln Asp Ala Leu Val Cys Ile Ser Glu Ser Val Pro Glu Pro 180 185 190

Ile Val Glu Trp Val Leu Cys Asp Ser Gln Gly Glu Ser Cys Lys Glu
195 200 205

- Glu Ser Pro Ala Val Val Lys Lys Glu Glu Lys Val Leu His Glu Leu 210 215 220
- Phe Gly Thr Asp Ile Arg Cys Cys Ala Arg Asn Glu Leu Gly Arg Glu 225 230 235 240
- Cys Thr Arg Leu Phe Thr Ile Asp Leu Asn Gln Thr Pro Gln Thr Thr 245 250 255
- Leu Pro Gln Leu Phe Leu Lys Val Gly Glu Pro Leu Trp Ile Arg Cys 260 265 270
- Lys Ala Val His Val Asn His Gly Phe Gly Leu Thr Trp Glu Leu Glu 275 280 285
- Asn Lys Ala Leu Glu Glu Gly Asn Tyr Phe Glu Met Ser Thr Tyr Ser 290 295 300
- Thr Asn Arg Thr Met Ile Arg Ile Leu Phe Ala Phe Val Ser Ser Val 305 310 315 320
- Ala Arg Asn Asp Thr Gly Tyr Tyr Thr Cys Ser Ser Ser Lys His Pro 325 330 335
- Ser Gln Ser Ala Leu Val Thr Ile Val Gly Lys Gly Phe Ile Asn Ala 340 345 350
- Thr Asn Ser Ser Glu Asp Tyr Glu Ile Asp Gln Tyr Glu Glu Phe Cys 355 360 365
- Phe Ser Val Arg Phe Lys Ala Tyr Pro Gln Ile Arg Cys Thr Trp Thr 370 375 380
- Phe Ser Arg Lys Ser Phe Pro Cys Glu Gln Lys Gly Leu Asp Asn Gly 385 390 395 400
- Tyr Ser Ile Ser Lys Phe Cys Asn His Lys His Gln Pro Gly Glu Tyr 405 410 415
- Ile Phe His Ala Glu Asn Asp Asp Ala Gln Phe Thr Lys Met Phe Thr 420 425 430
- Leu Asn Ile Arg Arg Lys Pro Gln Val Leu Ala Glu Ala Ser Ala Ser

435

440

445

Gln Ala Ser Cys Phe Ser Asp Gly Tyr Pro Leu Pro Ser Trp Thr Trp 455

Lys Lys Cys Ser Asp Lys Ser Pro Asn Cys Thr Glu Glu Ile Thr Glu 475

Gly Val Trp Asn Arg Lys Ala Asn Arg Lys Val Phe Gly Gln Trp Val

Ser Ser Ser Thr Leu Asn Met Ser Glu Ala Ile Lys Gly Phe Leu Val

Lys Cys Cys Ala Tyr Asn Ser Leu Gly Thr Ser Cys Glu Thr Ile Leu

Leu Asn Ser Pro Gly Pro Phe Pro Phe Ile Gln Asp Asn Ile Ser Phe 535

Tyr Ala Thr Ile Gly Val Cys Leu Leu Phe Ile Val Val Leu Thr Leu 550

Leu Ile Cys His Lys Tyr Lys Lys Gln Phe Arg Tyr Glu Ser Gln Leu 570 565

Gln Met Val Gln Val Thr Gly Ser Ser Asp Asn Glu Tyr Phe Tyr Val 585

Asp Phe Arg Glu Tyr Glu Tyr Asp Leu Lys Trp Glu Phe Pro Arg Glu 600

Asn Leu Glu Phe Gly Lys Val Leu Gly Ser Gly Ala Phe Gly Lys Val 615

Met Asn Ala Thr Ala Tyr Gly Ile Ser Lys Thr Gly Val Ser Ile Gln 630 635 625

Val Ala Val Lys Met Leu Lys Glu Lys Ala Asp Ser Ser Glu Arg Glu 645 650

Ala Leu Met Ser Glu Leu Lys Met Met Thr Gln Leu Gly Ser His Glu 660 665

Asn Ile Val Asn Leu Leu Gly Ala Cys Thr Leu Ser Gly Pro Ile Tyr 680 685 675

Leu Ile Phe Glu Tyr Cys Cys Tyr Gly Asp Leu Leu Asn Tyr Leu Arg 690 695 700

Ser Lys Arg Glu Lys Phe His Arg Thr Trp Thr Glu Ile Phe Lys Glu 705 710 715 720

His Asn Phe Ser Phe Tyr Pro Thr Phe Gln Ser His Pro Asn Ser Ser 725 730 735

Met Pro Gly Ser Arg Glu Val Gln Ile His Pro Asp Ser Asp Gln Ile 740 745 750

Ser Gly Leu His Gly Asn Ser Phe His Ser Glu Asp Glu Ile Glu Tyr 755 760 765

Glu Asn Gln Lys Arg Leu Glu Glu Glu Glu Asp Leu Asn Val Leu Thr
770 780

Phe Glu Asp Leu Leu Cys Phe Ala Tyr Gln Val Ala Lys Gly Met Glu 785 790 795 800

Phe Leu Glu Phe Lys Ser Cys Val His Arg Asp Leu Ala Ala Arg Asn 805 810 815

Val Leu Val Thr His Gly Lys Val Val Lys Ile Cys Asp Phe Gly Leu 820 825 830

Ala Arg Asp Ile Met Ser Asp Ser Asn Tyr Val Val Arg Gly Asn Ala 835 840 845

Arg Leu Pro Val Lys Trp Met Ala Pro Glu Ser Leu Phe Glu Gly Ile 850 855 860

Tyr Thr Ile Lys Ser Asp Val Trp Ser Tyr Gly Ile Leu Leu Trp Glu 865 870 875 880

Ile Phe Ser Leu Gly Val Asn Pro Tyr Pro Gly Ile Pro Val Asp Ala 885 890 895

Asn Phe Tyr Lys Leu Ile Gln Asn Gly Phe Lys Met Asp Gln Pro Phe 900 905 910

Tyr Ala Thr Glu Glu Ile Tyr Ile Ile Met Gln Ser Cys Trp Ala Phe 915 920 925

Asp Ser Arg Lys Arg Pro Ser Phe Pro Asn Leu Thr Ser Phe Leu Gly 930 935 940

Cys Gln Leu Ala Asp Ala Glu Glu Ala Met Tyr Gln Asn Val Asp Gly 945 950 955 960

Arg Val Ser Glu Cys Pro His Thr Tyr Gln Asn Arg Arg Pro Phe Ser 965 970 975

Arg Glu Met Asp Leu Gly Leu Leu Ser Pro Gln Ala Gln Val Glu Asp 980 985 990

Ser

<210> 2464

<211> 443

<212> PRT

<213> Homo sapiens

<400> 2464

Met Glu Val Thr Ala Asp Gln Pro Arg Trp Val Ser His His Pro 1 5 10 15

Ala Val Leu Asn Gly Gln His Pro Asp Thr His His Pro Gly Leu Ser 20 25 30

His Ser Tyr Met Asp Ala Ala Gln Tyr Pro Leu Pro Glu Glu Val Asp 35 40 45

Val Leu Phe Asn Ile Asp Gly Gln Gly Asn His Val Pro Pro Tyr Tyr 50 55 60

Gly Asn Ser Val Arg Ala Thr Val Gln Arg Tyr Pro Pro Thr His His 65 70 75 80

Gly Ser Gln Val Cys Arg Pro Pro Leu Leu His Gly Ser Leu Pro Trp 85 90 95

Leu Asp Gly Gly Lys Ala Leu Gly Ser His His Thr Ala Ser Pro Trp
100 105 110

Asn Leu Ser Pro Phe Ser Lys Thr Ser Ile His His Gly Ser Pro Gly
115 120 125

Pro Leu Ser Val Tyr Pro Pro Ala Ser Ser Ser Leu Ser Gly Gly

130 135 140

His Ala Ser Pro His Leu Phe Thr Phe Pro Pro Thr Pro Pro Lys Asp 145 150 155 160

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Val Ser Pro Asp Pro Ser Leu Ser Thr Pro Gly Ser Ala Gly Ser Ala 165 170 175

Arg Gln Asp Glu Lys Glu Cys Leu Lys Tyr Gln Val Pro Leu Pro Asp 180 185 190

Ser Met Lys Leu Glu Ser Ser His Ser Arg Gly Ser Met Thr Ala Leu 195 200 205

Gly Gly Ala Ser Ser Ser Thr His His Pro Ile Thr Thr Tyr Pro Pro 210 215 220

Tyr Val Pro Glu Tyr Ser Ser Gly Leu Phe Pro Pro Ser Ser Leu Leu 225 230 235 240

Gly Gly Ser Pro Thr Gly Phe Gly Cys Lys Ser Arg Pro Lys Ala Arg 245 250 255

Ser Ser Thr Gly Arg Glu Cys Val Asn Cys Gly Ala Thr Ser Thr Pro 260 265 270

Leu Trp Arg Arg Asp Gly Thr Gly His Tyr Leu Cys Asn Ala Cys Gly 275 280 285

Leu Tyr His Lys Met Asn Gly Gln Asn Arg Pro Leu Ile Lys Pro Lys 290 295 300

Arg Arg Leu Ser Ala Ala Arg Arg Ala Gly Thr Ser Cys Ala Asn Cys 305 310 315 320

Gln Thr Thr Thr Thr Leu Trp Arg Arg Asn Ala Asn Gly Asp Pro 325 330 335

Val Cys Asn Ala Cys Gly Leu Tyr Tyr Lys Leu His Asn Ile Asn Arg 340 345 350

Pro Leu Thr Met Lys Lys Glu Gly Ile Gln Thr Arg Asn Arg Lys Met 355 360 365

Ser Ser Lys Ser Lys Lys Cys Lys Lys Val His Asp Ser Leu Glu Asp 370 375 380

Phe Pro Lys Asn Ser Ser Phe Asn Pro Ala Ala Leu Ser Arg His Met 385 390 395 400

Ser Ser Leu Ser His Ile Ser Pro Phe Ser His Ser Ser His Met Leu 405 410 415

Thr Thr Pro Thr Pro Met His Pro Pro Ser Ser Leu Ser Phe Gly Pro 420 425 430

His His Pro Ser Ser Met Val Thr Ala Met Gly
435 440

<210> 2465

<211> 459

<212> PRT

<213> Homo sapiens

<400> 2465

Met Thr Ile Leu Gly Thr Thr Phe Gly Met Val Phe Ser Leu Leu Gln 1 5 10 15

Val Val Ser Gly Glu Ser Gly Tyr Ala Gln Asn Gly Asp Leu Glu Asp 20 25 30

Ala Glu Leu Asp Asp Tyr Ser Phe Ser Cys Tyr Ser Gln Leu Glu Val 35 40 45

Asn Gly Ser Gln His Ser Leu Thr Cys Ala Phe Glu Asp Pro Asp Val 50 55 60

Asn Ile Thr Asn Leu Glu Phe Glu Ile Cys Gly Ala Leu Val Glu Val 65 70 75 80

Lys Cys Leu Asn Phe Arg Lys Leu Gln Glu Ile Tyr Phe Ile Glu Thr 85 90 95

Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile Cys Val Lys Val Gly 100 105 110

Glu Lys Ser Leu Thr Cys Lys Lys Ile Asp Leu Thr Thr Ile Val Lys 115 120 125

Pro Glu Ala Pro Phe Asp Leu Ser Val Val Tyr Arg Glu Gly Ala Asn 130 135 140

Asp Phe Val Val Thr Phe Asn Thr Ser His Leu Gln Lys Lys Tyr Val 145 150 155 160

- Lys Val Leu Met His Asp Val Ala Tyr Arg Gln Glu Lys Asp Glu Asn 165 170 175
- Lys Trp Thr His Val Asn Leu Ser Ser Thr Lys Leu Thr Leu Leu Gln
 180 185 190
- Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu Ile Lys Val Arg Ser Ile 195 200 205
- Pro Asp His Tyr Phe Lys Gly Phe Trp Ser Glu Trp Ser Pro Ser Tyr 210 215 220
- Tyr Phe Arg Thr Pro Glu Ile Asn Asn Ser Ser Gly Glu Met Asp Pro 225 230 235 240
- Ile Leu Leu Thr Ile Ser Ile Leu Ser Phe Phe Ser Val Ala Leu Leu 245 250 255
- Val Ile Leu Ala Cys Val Leu Trp Lys Lys Arg Ile Lys Pro Ile Val 260 265 270
- Trp Pro Ser Leu Pro Asp His Lys Lys Thr Leu Glu His Leu Cys Lys 275 280 285
- Lys Pro Arg Lys Asn Leu Asn Val Ser Phe Asn Pro Glu Ser Phe Leu 290 295 300
- Asp Cys Gln Ile His Arg Val Asp Asp Ile Gln Ala Arg Asp Glu Val 305 310 315 320
- Glu Gly Phe Leu Gln Asp Thr Phe Pro Gln Gln Leu Glu Glu Ser Glu 325 330 335
- Lys Gln Arg Leu Gly Gly Asp Val Gln Ser Pro Asn Cys Pro Ser Glu 340 345 350
- Asp Val Val Ile Thr Pro Glu Ser Phe Gly Arg Asp Ser Ser Leu Thr 355 360 365
- Cys Leu Ala Gly Asn Val Ser Ala Cys Asp Ala Pro Ile Leu Ser Ser 370 380
- Ser Arg Ser Leu Asp Cys Arg Glu Ser Gly Lys Asn Gly Pro His Val

385 390 395 400

Tyr Gln Asp Leu Leu Ser Leu Gly Thr Thr Asn Ser Thr Leu Pro 405 410 415

Pro Pro Phe Ser Leu Gln Ser Gly Ile Leu Thr Leu Asn Pro Val Ala 420 425 430

Gln Gly Gln Pro Ile Leu Thr Ser Leu Gly Ser Asn Gln Glu Glu Ala 435 440 445

Tyr Val Thr Met Ser Ser Phe Tyr Gln Asn Gln 450 455

<210> 2466

<211> 362

<212> PRT

<213> Homo sapiens

<400> 2466

Met Ala Thr Ala Glu Thr Ala Leu Pro Ser Ile Ser Thr Leu Thr Ala 1 5 10 15

Leu Gly Pro Phe Pro Asp Thr Gln Asp Asp Phe Leu Lys Trp Trp Arg
20 25 30

Ser Glu Glu Ala Gln Asp Met Gly Pro Gly Pro Pro Asp Pro Thr Glu 35 40 45

Pro Pro Leu His Val Lys Ser Glu Asp Gln Pro Gly Glu Glu Glu Asp 50 55 60

Asp Glu Arg Gly Ala Asp Ala Thr Trp Asp Leu Asp Leu Leu Leu Thr 65 70 75 80

Asn Phe Ser Gly Pro Glu Pro Gly Gly Ala Pro Gln Thr Cys Ala Leu 85 90 95

Ala Pro Ser Glu Ala Ser Gly Ala Gln Tyr Pro Pro Pro Pro Glu Thr
100 105 110

Leu Gly Ala Tyr Ala Gly Gly Pro Gly Leu Val Ala Gly Leu Leu Gly
115 120 125

Ser Glu Asp His Ser Gly Trp Val Arg Pro Ala Leu Arg Ala Arg Ala 130 135 140

Pro Asp Ala Phe Val Gly Pro Ala Leu Ala Pro Ala Pro Ala Pro Glu
145 150 155 160

Pro Lys Ala Leu Ala Leu Gln Pro Val Tyr Pro Gly Pro Gly Ala Gly 165 170 175

Ser Ser Gly Gly Tyr Phe Pro Arg Thr Gly Leu Ser Val Pro Ala Ala 180 185 190

Ser Gly Ala Pro Tyr Gly Leu Leu Ser Gly Tyr Pro Ala Met Tyr Pro 195 200 205

Ala Pro Gln Tyr Gln Gly His Phe Gln Leu Phe Arg Gly Leu Gln Gly 210 215 220

Pro Ala Pro Gly Pro Ala Thr Ser Pro Ser Phe Leu Ser Cys Leu Gly 225 230 235 240

Pro Gly Thr Val Gly Thr Gly Leu Gly Gly Thr Ala Glu Asp Pro Gly 245 250 255

Val Ile Ala Glu Thr Ala Pro Ser Lys Arg Gly Arg Arg Ser Trp Ala 260 265 270

Arg Lys Arg Gln Ala Ala His Thr Cys Ala His Pro Gly Cys Gly Lys
275 280 285

Ser Tyr Thr Lys Ser Ser His Leu Lys Ala His Leu Arg Thr His Thr 290 295 300

Gly Glu Lys Pro Tyr Ala Cys Thr Trp Glu Gly Cys Gly Trp Arg Phe 305 310 315 320

Ala Arg Ser Asp Glu Leu Thr Arg His Tyr Arg Lys His Thr Gly Gln 325 330 335

Arg Pro Phe Arg Cys Gln Leu Cys Pro Arg Ala Phe Ser Arg Ser Asp 340 345 350

His Leu Ala Leu His Met Lys Arg His Leu 355 360

<210> 2467

<211> 509

<212> PRT

<213> Homo sapiens

<400> 2467

Met Gly Cys Gly Cys Ser Ser His Pro Glu Asp Asp Trp Met Glu Asn 1 10 15

Ile Asp Val Cys Glu Asn Cys His Tyr Pro Ile Val Pro Leu Asp Gly
20 25 30

Lys Gly Thr Leu Leu Ile Arg Asn Gly Ser Glu Val Arg Asp Pro Leu 35 40 45

Val Thr Tyr Glu Gly Ser Asn Pro Pro Ala Ser Pro Leu Gln Asp Asn 50 55 60

Leu Val Ile Ala Leu His Ser Tyr Glu Pro Ser His Asp Gly Asp Leu 65 70 75 80

Gly Phe Glu Lys Gly Glu Pro Leu Arg Ile Leu Glu Gln Ser Gly Glu 85 90 95

Trp Trp Lys Ala Gln Ser Leu Thr Thr Gly Gln Glu Gly Phe Ile Pro
100 105 110

Phe Asn Phe Val Ala Lys Ala Asn Ser Leu Glu Pro Glu Pro Trp Phe 115 120 125

Phe Lys Asn Leu Ser Arg Lys Asp Ala Glu Arg Gln Leu Leu Ala Pro 130 135 140

Gly Asn Thr His Gly Ser Phe Leu Ile Arg Glu Ser Glu Ser Thr Ala 145 150 155 160

Gly Ser Phe Ser Leu Ser Val Arg Asp Phe Asp Gln Asn Gln Gly Glu 165 170 175

Val Val Lys His Tyr Lys Ile Arg Asn Leu Asp Asn Gly Gly Phe Tyr 180 185 190

Ile Ser Pro Arg Ile Thr Phe Pro Gly Leu His Glu Leu Val Arg His
195 200 205

Tyr Thr Asn Ala Ser Asp Gly Leu Cys Thr Arg Leu Ser Arg Pro Cys 210 215 220

Gln Thr Gln Lys Pro Gln Lys Pro Trp Trp Glu Asp Glu Trp Glu Val 225 230 235 240 Pro Arg Glu Thr Leu Lys Leu Val Glu Arg Leu Gly Ala Gly Gln Phe
245 250 255

- Gly Glu Val Trp Met Gly Tyr Tyr Asn Gly His Thr Lys Val Ala Val 260 265 270
- Lys Ser Leu Lys Gln Gly Ser Met Ser Pro Asp Ala Phe Leu Ala Glu 275 280 285
- Ala Asn Leu Met Lys Gln Leu Gln His Gln Arg Leu Val Arg Leu Tyr 290 295 300
- Ala Val Val Thr Gln Glu Pro Ile Tyr Ile Ile Thr Glu Tyr Met Glu 305 310 315 320
- Asn Gly Ser Leu Val Asp Phe Leu Lys Thr Pro Ser Gly Ile Lys Leu 325 330 335
- Thr Ile Asn Lys Leu Leu Asp Met Ala Ala Gln Ile Ala Glu Gly Met 340 345 350
- Ala Phe Ile Glu Glu Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala 355 360 365
- Asn Ile Leu Val Ser Asp Thr Leu Ser Cys Lys Ile Ala Asp Phe Gly 370 375 380
- Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala 385 390 395 400
- Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ile Asn Tyr Gly Thr 405 410 415
- Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Thr Glu 420 425 430
- Ile Val Thr His Gly Arg Ile Pro Tyr Pro Gly Met Thr Asn Pro Glu
 435 440 445
- Val Ile Gln Asn Leu Glu Arg Gly Tyr Arg Met Val Arg Pro Asp Asn 450 455 460
- Cys Pro Glu Glu Leu Tyr Gln Leu Met Arg Leu Cys Trp Lys Glu Arg 465 470 475 480

Pro Glu Asp Arg Pro Thr Phe Asp Tyr Leu Arg Ser Val Leu Glu Asp 485 490 495

Phe Phe Thr Ala Thr Glu Gly Gln Tyr Gln Pro Gln Pro 500 505

<210> 2468

<211> 399

<212> PRT

<213> Homo sapiens

<400> 2468

Met Pro Gln Leu Ser Gly Gly Gly Gly Gly Gly Gly Gly Asp Pro Glu
1 10 15

Leu Cys Ala Thr Asp Glu Met Ile Pro Phe Lys Asp Glu Gly Asp Pro 20 25 30

Gln Lys Glu Lys Ile Phe Ala Glu Ile Ser His Pro Glu Glu Glu Gly 35 40 45

Asp Leu Ala Asp Ile Lys Ser Ser Leu Val Asn Glu Ser Glu Ile Ile 50 55 60

Pro Ala Ser Asn Gly His Glu Val Ala Arg Gln Ala Gln Thr Ser Gln 65 70 75 80

Glu Pro Tyr His Asp Lys Ala Arg Glu His Pro Asp Asp Gly Lys His
85 90 95

Pro Asp Gly Gly Leu Tyr Asn Lys Gly Pro Ser Tyr Ser Ser Tyr Ser 100 105 110

Gly Tyr Ile Met Met Pro Asn Met Asn Asn Asp Pro Tyr Met Ser Asn 115 120 125

Gly Ser Leu Ser Pro Pro Ile Pro Arg Thr Ser Asn Lys Val Pro Val 130 135 140

Val Gln Pro Ser His Ala Val His Pro Leu Thr Pro Leu Ile Thr Tyr 145 150 155 160

Ser Asp Glu His Phe Ser Pro Gly Ser His Pro Ser His Ile Pro Ser 165 170 175

Asp Val Asn Ser Lys Gln Gly Met Ser Arg His Pro Pro Ala Pro Asp

180 185 190

Ile Pro Thr Phe Tyr Pro Leu Ser Pro Gly Gly Val Gly Gln Ile Thr 195 200 205

Pro Pro Leu Gly Trp Gln Gly Gln Pro Val Tyr Pro Ile Thr Gly Gly 210 215 220

Phe Arg Gln Pro Tyr Pro Ser Ser Leu Ser Val Asp Thr Ser Met Ser 225 230 235 240

Arg Phe Ser His His Met Ile Pro Gly Pro Pro Gly Pro His Thr Thr 245 250 255

Gly Ile Pro His Pro Ala Ile Val Thr Pro Gln Val Lys Gln Glu His 260 265 270

Pro His Thr Asp Ser Asp Leu Met His Val Lys Pro Gln His Glu Gln 275 280 285

Arg Lys Glu Glu Pro Lys Arg Pro His Ile Lys Lys Pro Leu Asn 290 295 300

Ala Phe Met Leu Tyr Met Lys Glu Met Arg Ala Asn Val Val Ala Glu 305 310 315 320

Cys Thr Leu Lys Glu Ser Ala Ala Ile Asn Gln Ile Leu Gly Arg Arg 325 330 335

Trp His Ala Leu Ser Arg Glu Glu Gln Ala Lys Tyr Tyr Glu Leu Ala 340 345 350

Arg Lys Glu Arg Gln Leu His Met Gln Leu Tyr Pro Gly Trp Ser Ala 355 360 365

Arg Asp Asn Tyr Gly Lys Lys Lys Lys Arg Lys Arg Glu Lys Leu Gln 370 375 380

Glu Ser Ala Ser Gly Thr Gly Pro Arg Met Thr Ala Ala Tyr Ile 385 390 395

<210> 2469

<211> 335

<212> PRT

<213> Homo sapiens

<400> 2469

Met Gly His Pro Pro Leu Leu Pro Leu Leu Leu Leu His Thr Cys

1 10 15

- Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
 20 25 30
- Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr 35 40 45
- Thr Ile Val Arg Leu Trp Glu Glu Glu Glu Leu Glu Leu Val Glu
 50 55 60
- Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg 65 70 75 80
- Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp 85 90 95
- Leu Cys Asn Gln Gly Asn Ser Gly Arg Ala Val Thr Tyr Ser Arg Ser 100 105 110
- Arg Tyr Leu Glu Cys Ile Ser Cys Gly Ser Ser Asp Met Ser Cys Glu
 115 120 125
- Arg Gly Arg His Gln Ser Leu Gln Cys Arg Ser Pro Glu Glu Gln Cys 130 135 140
- Leu Asp Val Val Thr His Trp Ile Gln Glu Gly Glu Glu Gly Arg Pro 145 150 155 160
- Lys Asp Asp Arg His Leu Arg Gly Cys Gly Tyr Leu Pro Gly Cys Pro 165 170 175
- Gly Ser Asn Gly Phe His Asn Asn Asp Thr Phe His Phe Leu Lys Cys 180 185 190
- Cys Asn Thr Thr Lys Cys Asn Glu Gly Pro Ile Leu Glu Leu Glu Asn 195 200 205
- Leu Pro Gln Asn Gly Arg Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr 210 215 220
- His Gly Cys Ser Ser Glu Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro 225 230 235 240

Met Asn Gln Cys Leu Val Ala Thr Gly Thr His Glu Pro Lys Asn Gln 245 250 255

Ser Tyr Met Val Arg Gly Cys Ala Thr Ala Ser Met Cys Gln His Ala 260 265 270

His Leu Gly Asp Ala Phe Ser Met Asn His Ile Asp Val Ser Cys Cys 275 280 285

Thr Lys Ser Gly Cys Asn His Pro Asp Leu Asp Val Gln Tyr Arg Ser 290 295 300

Gly Ala Ala Pro Gln Pro Gly Pro Ala His Leu Ser Leu Thr Ile Thr 305 310 315 320

Leu Leu Met Thr Ala Arg Leu Trp Gly Gly Thr Leu Leu Trp Thr 325 330 335

<210> 2470

<211> 285

<212> PRT

<213> Homo sapiens

<400> 2470

Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu

5 10 15

Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro 20 25 30

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu 35 40 45

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val 50 55 60

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg 65 70 75 80

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly 85 90 95

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu 100 105 110

Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn 115 120 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln 130 135 140

Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys 145 150 155 160

Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser 165 170 175

Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr 180 185 190

Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met 195 200 205

Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu 210 215 220

Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu 225 230 235 240

Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly 245 250 255

Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu 260 265 270

Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu 275 280 285

<210> 2471

<211> 99

<212> PRT

<213> Homo sapiens

<400> 2471

Met Thr Ser Lys Leu Ala Val Ala Leu Leu Ala Ala Phe Leu Ile Ser 1 5 10 15

Ala Ala Leu Cys Glu Gly Ala Val Leu Pro Arg Ser Ala Lys Glu Leu 20 25 30

Arg Cys Gln Cys Ile Lys Thr Tyr Ser Lys Pro Phe His Pro Lys Phe 35 40 45

Ile Lys Glu Leu Arg Val Ile Glu Ser Gly Pro His Cys Ala Asn Thr 50 55 60

Glu Ile Ile Val Lys Leu Ser Asp Gly Arg Glu Leu Cys Leu Asp Pro 65 70 75 80

Lys Glu Asn Trp Val Gln Arg Val Val Glu Lys Phe Leu Lys Arg Ala 85 90 95

Glu Asn Ser

<210> 2472

<211> 247

<212> PRT

<213> Homo sapiens

<400> 2472

Met Gln Pro Ile Leu Leu Leu Leu Ala Phe Leu Leu Pro Arg Ala 1 5 10 15

Asp Ala Gly Glu Ile Ile Gly Gly His Glu Ala Lys Pro His Ser Arg 20 25 30

Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser Leu Lys Arg 35 40 45

Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr Ala Ala His 50 55 60

Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His Asn Ile Lys 70 75 80

Glu Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg Pro Ile Pro 85 90 95

His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile Met Leu Leu 100 105 110

Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln Pro Leu Arg 115 120 125

Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr Cys Ser Val 130 135 140

Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser His Thr Leu 145 150 155 160

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Gln Glu Val Lys Met Thr Val Gln Glu Asp Arq Lys Cys Glu Ser Asp 165 170

Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val Gly Asp Pro 180 185

Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly Pro Leu Val 195 200

Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg Asn Asn Gly 215

Met Pro Pro Arg Ala Cys Thr Lys Val Ser Ser Phe Val His Trp Ile 235

Lys Lys Thr Met Lys Arg Tyr

<210> 2473

<211> 281 <212> PRT

<213> Homo sapiens

<400> 2473

Met Gln Gln Pro Phe Asn Tyr Pro Tyr Pro Gln Ile Tyr Trp Val Asp

Ser Ser Ala Ser Ser Pro Trp Ala Pro Pro Gly Thr Val Leu Pro Cys 25

Pro Thr Ser Val Pro Arg Arg Pro Gly Gln Arg Arg Pro Pro Pro 40

Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro

Pro Leu Pro Leu Pro Pro Leu Lys Lys Arg Gly Asn His Ser Thr Gly 75

Leu Cys Leu Leu Val Met Phe Phe Met Val Leu Val Ala Leu Val Gly

Leu Gly Leu Gly Met Phe Gln Leu Phe His Leu Gln Lys Glu Leu Ala 105

Glu Leu Arg Glu Ser Thr Ser Gln Met His Thr Ala Ser Ser Leu Glu 120 115

Lys Gln Ile Gly His Pro Ser Pro Pro Pro Glu Lys Lys Glu Leu Arg 135 140

Lys Val Ala His Leu Thr Gly Lys Ser Asn Ser Arg Ser Met Pro Leu

Glu Trp Glu Asp Thr Tyr Gly Ilë Val Leu Leu Ser Gly Val Lys Tyr 165

Lys Lys Gly Gly Leu Val Ile Asn Glu Thr Gly Leu Tyr Phe Val Tyr 180

Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys Asn Asn Leu Pro Leu Ser 200 195

His Lys Val Tyr Met Arg Asn Ser Lys Tyr Pro Gln Asp Leu Val Met 215 210

Met Glu Gly Lys Met Met Ser Tyr Cys Thr Thr Gly Gln Met Trp Ala 225 230 235

Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn Leu Thr Ser Ala Asp His 250 245

Leu Tyr Val Asn Val Ser Glu Leu Ser Leu Val Asn Phe Glu Glu Ser 260 265

Gln Thr Phe Phe Gly Leu Tyr Lys Leu 275 280

<210> 2474 <211> 830 <212> PRT <213> Homo sapiens

<400> 2474

Met Gly Ser Met Phe Arg Ser Glu Glu Val Ala Leu Val Gln Leu Phe

Leu Pro Thr Ala Ala Ala Tyr Thr Cys Val Ser Arg Leu Gly Glu Leu

Gly Leu Val Glu Phe Arg Asp Leu Asn Ala Ser Val Ser Ala Phe Gln 40

Arg Arg Phe Val Val Asp Val Arg Arg Cys Glu Glu Leu Glu Lys Thr 50 55 60

- Phe Thr Phe Leu Gln Glu Glu Val Arg Arg Ala Gly Leu Val Leu Pro 65 70 75 80
- Pro Pro Lys Gly Arg Leu Pro Ala Pro Pro Pro Arg Asp Leu Leu Arg 85 90 95
- Ile Gln Glu Glu Thr Glu Arg Leu Ala Gln Glu Leu Arg Asp Val Arg
 100 105 110
- Gly Asn Gln Gln Ala Leu Arg Ala Gln Leu His Gln Leu Gln Leu His
 115 120 125
- Ala Ala Val Leu Arg Gln Gly His Glu Pro Gln Leu Ala Ala His 130 135 140
- Thr Asp Gly Ala Ser Glu Arg Thr Pro Leu Leu Gln Ala Pro Gly Gly 145 150 155 160
- Pro His Gln Asp Leu Arg Val Asn Phe Val Ala Gly Ala Val Glu Pro 165 170 175
- His Lys Ala Pro Ala Leu Glu Arg Leu Leu Trp Arg Ala Cys Arg Gly
 180 185 190
- Phe Leu Ile Ala Ser Phe Arg Glu Leu Glu Gln Pro Leu Glu His Pro 195 200 205
- Val Thr Gly Glu Pro Ala Thr Trp Met Thr Phe Leu Ile Ser Tyr Trp 210 215 220
- Gly Glu Gln Ile Gly Gln Lys Ile Arg Lys Ile Thr Asp Cys Phe His 225 230 235 240
- Cys His Val Phe Pro Phe Leu Gln Gln Glu Glu Ala Arg Leu Gly Ala 245 250 255
- Leu Gln Gln Leu Gln Gln Gln Ser Gln Glu Leu Gln Glu Val Leu Gly 260 265 270
- Glu Thr Glu Arg Phe Leu Ser Gln Val Leu Gly Arg Val Leu Gln Leu 275 280 285

Leu	Pro	Pro	Gly	Gln	Val	Gln	Val	His	Lys	Met	Lys	Ala	Val	Tyr	Leu
	290					295					300				

- Ala Leu Asn Gln Cys Ser Val Ser Thr Thr His Lys Cys Leu Ile Ala 305 310 315 320
- Glu Ala Trp Cys Ser Val Arg Asp Leu Pro Ala Leu Gln Glu Ala Leu 325 330 335
- Arg Asp Ser Ser Met Glu Glu Gly Val Ser Ala Val Ala His Arg Ile 340 345 350
- Pro Cys Arg Asp Met Pro Pro Thr Leu Ile Arg Thr Asn Arg Phe Thr 355 360 365
- Ala Ser Phe Gln Gly Ile Val Asp Ala Tyr Gly Val Gly Arg Tyr Gln 370 380
- Glu Val Asn Pro Ala Pro Tyr Thr Ile Ile Thr Phe Pro Phe Leu Phe 385 390 395 400
- Ala Val Met Phe Gly Asp Val Gly His Gly Leu Leu Met Phe Leu Phe 405 410 415
- Ala Leu-Ala Met Val Leu Ala Glu Asn Arg Pro Ala Val Lys Ala Ala 420 425 430
- Gln Asn Glu Ile Trp Gln Thr Phe Phe Arg Gly Arg Tyr Leu Leu 435 440 445
- Leu Met Gly Leu Phe Ser Ile Tyr Thr Gly Phe Ile Tyr Asn Glu Cys 450 455 460
- Phe Ser Arg Ala Thr Ser Ile Phe Pro Ser Gly Trp Ser Val Ala Ala 465 470 475 480
- Met Ala Asn Gln Ser Gly Trp Ser Asp Ala Phe Leu Ala Gln His Thr 485 490 495
- Met Leu Thr Leu Asp Pro Asn Val Thr Gly Val Phe Leu Gly Pro Tyr 500 505 510
- Pro Phe Gly Ile Asp Pro Ile Trp Ser Leu Ala Ala Asn His Leu Ser 515 520 525

Phe	Leu 530	Asn	Ser	Phe	Lys	Met 535	Lys	Met	Ser	Val	11e 540	Leu	Gly	Val	Val
His 545	Met	Ala	Phe	Gly	Val 550	Val	Leu	Gly	Val	Phe 555	Asn	His	Val	His	Phe 560
Gly	Gln	Arg	His	Arg 565	Leu	Leu	Leu	Glu	Thr 570	Leu	Pro	Glu	Leu	Thr 575	Ph€
Leu	Leu	Gly	Leu 580	Phe	Gly	туг	Leu	Val 585	Phe	Leu	Val	Ile	Tyr 590	Lys	Trp
Leu	Суз	Val 595	Trp	Ala	Ala	Arg	Ala 600	Ala	Ser	Ala	Pro	Ser 605	Ile	Leu	Ile
His	Phe 610	Ile	Asn	Met	Phe	Leu 615	Phe	Ser	His	Ser	Pro 620	Ser	Asn	Arg	Lev
Leu 625	Tyr	Pro	Arg	Gln	Glu 630	Val	Val	Gln	Ala	Thr 635	Leu	Val	Val	Leu	Ala 640
Leu	Ala	Met	Val	Pro 645	Ile	Leu	Leu	Leu	Gly 650	Thr	Pro	Leu	His	Leu 655	Let
His	Arg	His	Arg 660	Arg	Arg	Leu	Arg	Arg 665	Arg	Pro	Ala	Asp	Arg 670	Gln	Glu
Glu	Asn	Lys 675	Ala	Gly	Leu	Leu	Asp 680	Leu	Pro	Asp	Ala	Ser 685	Val	Asn	Gl
Trp	Ser 690	Ser	Asp	Glu	Glu	Lys 695	Ala	Gly	Gly	Leu	Asp 700	Asp	Glu	Glu	Glu
Ala 705	Glu	Leu	Val	Pro	Ser 710	Glu	Val	Leu	Met	His 715	Gln	Ala	Ile	His	Th:
Ile	Glu	Phe	Сув	Leu 725	Gly	Суѕ	Val	Ser	Asn 730	Thr	Ala	Ser	Tyr	Leu 735	Arc
Leu	Trp	Ala	Leu 740	Ser	Leu	Ala	His	Ala 745	Gln	Leu	Ser	Glu	Val 750	Leu	Trp
Ala	Met	Val 755	Met	Arg	Ile	Gly	Leu 760	Gly	Leu	Gly	Arg	Glu 765	Val	Gly	Va]

816

Ala Ala Val Val Leu Val Pro Ile Phe Ala Ala Phe Ala Val Met Thr

770 775 780

Val Ala Ile Leu Leu Val Met Glu Gly Leu Ser Ala Phe Leu His Ala 785 790 795 800

Leu Arg Leu His Trp Val Glu Phe Gln Asn Lys Phe Tyr Ser Gly Thr 805 810 815

Gly Tyr Lys Leu Ser Pro Phe Thr Phe Ala Ala Thr Asp Asp 820 825 830

<210> 2475

<211> 555

<212> PRT

<213> Homo sapiens

<400> 2475

Met Ala Ala Arg Leu Leu Leu Gly Ile Leu Leu Leu Leu Pro 1 5 10 15

Leu Pro Val Pro Ala Pro Cys His Thr Ala Ala Arg Ser Glu Cys Lys
20 25 30

Arg Ser His Lys Phe Val Pro Gly Ala Trp Leu Ala Gly Glu Gly Val 35 40 45

Asp Val Thr Ser Leu Arg Arg Ser Gly Ser Phe Pro Val Asp Thr Gln 50 55 60

Arg Phe Leu Arg Pro Asp Gly Thr Cys Thr Leu Cys Glu Asn Ala Leu 65 70 75 80

Gln Glu Gly Thr Leu Gln Arg Leu Pro Leu Ala Leu Thr Asn Trp Arg 85 90 95

Ala Gln Gly Ser Gly Cys Gln Arg His Val Thr Arg Ala Lys Val Ser 100 105 110

Ser Thr Glu Ala Val Ala Arg Asp Ala Ala Arg Ser Ile Arg Asn Asp 115 120 125

Trp Lys Val Gly Leu Asp Val Thr Pro Lys Pro Thr Ser Asn Val His 130 135 140

Val Ser Val Ala Gly Ser His Ser Gln Ala Ala Asn Phe Ala Ala Gln 145 150 155 160

- Lys Thr His Gln Asp Gln Tyr Ser Phe Ser Thr Asp Thr Val Glu Cys 165 170 175
- Arg Phe Tyr Ser Phe His Val Val His Thr Pro Pro Leu His Pro Asp 180 185 190
- Phe Lys Arg Ala Leu Gly Asp Leu Pro His His Phe Asn Ala Ser Thr 195 200 205
- Gln Pro Ala Tyr Leu Arg Leu Ile Ser Asn Tyr Gly Thr His Phe Ile 210 215 220
- Arg Ala Val Glu Leu Gly Gly Arg Ile Ser Ala Leu Thr Ala Leu Arg 225 230 235 240
- Thr Cys Glu Leu Ala Leu Glu Gly Leu Thr Asp Asn Glu Val Glu Asp 245 250 255
- Cys Leu Thr Val Glu Ala Gln Val Asn Ile Gly Ile His Gly Ser Ile
 260 265 270
- Ser Ala Glu Ala Lys Ala Cys Glu Glu Lys Lys Lys Lys His Lys Met 275 280 285
- Thr Ala Ser Phe His Gln Thr Tyr Arg Glu Arg His Ser Glu Val Val 290 295 300
- Gly Gly His His Thr Ser Ile Asn Asp Leu Leu Phe Gly Ile Gln Ala 305 310 315 320
- Gly Pro Glu Gln Tyr Ser Ala Trp Val Asn Ser Val Pro Gly Ser Pro 325 330 335
- Gly Leu Val Asp Tyr Thr Leu Glu Pro Leu His Val Leu Leu Asp Ser 340 345 350
- Gln Asp Pro Arg Arg Glu Ala Leu Arg Arg Ala Leu Ser Gln Tyr Leu 355 360 365
- Thr Asp Arg Ala Arg Trp Arg Asp Cys Ser Arg Pro Cys Pro Pro Gly 370 375 380
- Arg Gln Lys Ser Pro Arg Asp Pro Cys Gln Cys Val Cys His Gly Ser 385 390 395 400

Ala Val Thr Thr Gln Asp Cys Cys Pro Arg Gln Arg Gly Leu Ala Gln 405 410 415

- Leu Glu Val Thr Phe Ile Gln Ala Trp Ser Leu Trp Gly Asp Trp Phe 420 425 430
- Thr Ala Thr Asp Ala Tyr Val Lys Leu Phe Phe Gly Gly Gln Glu Leu 435 440 445
- Arg Thr Ser Thr Val Trp Asp Asn Asn Pro Ile Trp Ser Val Arg
 450 455 460
- Leu Asp Phe Gly Asp Val Leu Leu Ala Thr Gly Gly Pro Leu Arg Leu 465 470 475 480
- Gln Val Trp Asp Gln Asp Ser Gly Arg Asp Asp Asp Leu Leu Gly Thr 485 490 495
- Cys Asp Gln Ala Pro Lys Ser Gly Ser His Glu Val Arg Cys Asn Leu 500 505 510
- Asn His Gly His Leu Lys Phe Arg Tyr His Ala Arg Cys Leu Pro His 515 520 525
- Leu Gly Gly Gly Thr Cys Leu Asp Tyr Val Pro Gln Met Leu Leu Gly 530 535 540
- Glu Pro Pro Gly Asn Arg Ser Gly Ala Val Trp 545 550 555
- <210> 2476
- <211> 153
- <212> PRT
- <213> Homo sapiens
- <400> 2476
- Met Gly Leu Thr Ser Gln Leu Leu Pro Pro Leu Phe Phe Leu Leu Ala 1 5 10 15
- Cys Ala Gly Asn Phe Val His Gly His Lys Cys Asp Ile Thr Leu Gln 20 25 30
- Glu Ile Ile Lys Thr Leu Asn Ser Leu Thr Glu Gln Lys Thr Leu Cys 35 40 45
- Thr Glu Leu Thr Val Thr Asp Ile Phe Ala Ala Ser Lys Asn Thr Thr 50 55 60

Glu Lys Glu Thr Phe Cys Arg Ala Ala Thr Val Leu Arg Gln Phe Tyr
65 70 75 80

Ser His His Glu Lys Asp Thr Arg Cys Leu Gly Ala Thr Ala Gln Gln 85 90 95

Phe His Arg His Lys Gln Leu Ile Arg Phe Leu Lys Arg Leu Asp Arg 100 105 110

Asn Leu Trp Gly Leu Ala Gly Leu Asn Ser Cys Pro Val Lys Glu Ala 115 120 125

Asn Gln Ser Thr Leu Glu Asn Phe Leu Glu Arg Leu Lys Thr Ile Met 130 135 140

Arg Glu Lys Tyr Ser Lys Cys Ser Ser 145 150

<210> 2477

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2477

Met His Pro Leu Leu Asn Pro Leu Leu Leu Ala Leu Gly Leu Met Ala 1 5 10 15

Leu Leu Leu Thr Thr Val Ile Ala Leu Thr Cys Leu Gly Gly Phe Ala 20 25 30

Ser Pro Gly Pro Val Pro Pro Ser Thr Ala Leu Arg Glu Leu Ile Glu 35 40 45

Glu Leu Val Asn Ile Thr Gln Asn Gln Lys Ala Pro Leu Cys Asn Gly 50 55 60

Ser Met Val Trp Ser Ile Asn Leu Thr Ala Gly Met Tyr Cys Ala Ala 65 70 . 75 80

Leu Glu Ser Leu Ile Asn Val Ser Gly Cys Ser Ala Ile Glu Lys Thr 85 90 95

Gln Arg Met Leu Ser Gly Phe Cys Pro His Lys Val Ser Ala Gly Gln
100 105 110

Phe Ser Ser Leu His Val Arg Asp Thr Lys Ile Glu Val Ala Gln Phe 115 120 125

Val Lys Asp Leu Leu His Leu Lys Lys Leu Phe Arg Glu Gly Gln 130 135 140

Phe Asn 145

<210> 2478

<211> 223

<212> PRT

<213> Homo sapiens

<400> 2478

Met Ala Cys Leu Gly Phe Gln Arg His Lys Ala Gln Leu Asn Leu Ala 1 5 10 15

Thr Arg Thr Trp Pro Cys Thr Leu Leu Phe Phe Leu Leu Phe Ile Pro 20 25 30

Val Phe Cys Lys Ala Met His Val Ala Gln Pro Ala Val Leu Ala 35 40 45

Ser Ser Arg Gly Ile Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly 50 55 60

Lys Ala Thr Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln 65 70 75 80

Val Thr Glu Val Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr 85 90 95

Phe Leu Asp Asp Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val

Asn Leu Thr Ile Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile 115 120 125

Cys Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly 130 135 140

Asn Gly Thr Gln Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser 145 150 155 160

Asp Phe Leu Leu Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe 165 170 175

Tyr Ser Phe Leu Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys
180 185 190

Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu
195 200 205

Pro Glu Cys Glu Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn 210 215 220

<210> 2479

<211> 235

<212> PRT

<213> Homo sapiens

<400> 2479

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu 1 5 10 15

His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr 20 25 30

Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser 35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp 85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg 145 150 155 160

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Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly

- Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr 185
- Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His 200
- Arg Asn Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser 215
- Gly Asp Lys Pro Ser Leu Ser Ala Arg Tyr Val 230
- <210> 2480
- <211> 181 <212> PRT
- <213> Homo sapiens

<400> 2480

- Met Leu Leu Glu Pro Gly Arg Gly Cys Cys Ala Leu Ala Ile Leu Leu 5 10
- Ala Ile Val Asp Ile Gln Ser Gly Gly Cys Ile Asn Ile Thr Ser Ser 20 25
- Ala Ser Gln Glu Gly Thr Arg Leu Asn Leu Ile Cys Thr Val Trp His 35 40
- Lys Lys Glu Glu Ala Glu Gly Phe Val Val Phe Leu Cys Lys Asp Arg 50 55
- Ser Gly Asp Cys Ser Pro Glu Thr Ser Leu Lys Gln Leu Arg Leu Lys 65 70 75
- Arg Asp Pro Gly Ile Asp Gly Val Gly Glu Ile Ser Ser Gln Leu Met 85 90
- Phe Thr Ile Ser Gln Val Thr Pro Leu His Ser Gly Thr Tyr Gln Cys 100 105
- Cys Ala Arg Ser Gln Lys Ser Gly Ile Arg Leu Gln Gly His Phe Phe 115 120
- Ser Ile Leu Phe Thr Glu Thr Gly Asn Tyr Thr Val Thr Gly Leu Lys 130 135

Gln Arg Gln His Leu Glu Phe Ser His Asn Glu Gly Thr Leu Ser Ser 145 150 155 160

Gly Phe Leu Gln Glu Lys Val Trp Val Met Leu Val Thr Ser Leu Val
165 170 175

Ala Leu Gln Ala Leu 180

<210> 2481

<211> 147

<212> PRT

<213> Homo sapiens

<400> 2481

Met Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr Ala Leu Trp 1 5 10 15

Gly Lys Val Asn Val Asp Glu Val Gly Glu Ala Leu Gly Arg Leu 20 25 30

Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp 35 40 45

Leu Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His 50 55 60

Gly Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp 65 70 75 80

Asn Leu Lys Gly Thr Phe Ala Thr Leu Ser Glu Leu His Cys Asp Lys 85 90 95

Leu His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Val Leu Val
100 105 110

Cys Val Leu Ala His His Phe Gly Lys Glu Phe Thr Pro Pro Val Gln 115 120 125

Ala Ala Tyr Gln Lys Val Val Ala Gly Val Ala Asn Ala Leu Ala His 130 135 140

Lys Tyr His

<210> 2482 <211> 259 <212> PRT

<213> Homo sapiens

<400> 2482

Met Ser Lys Tyr Lys Leu Ile Met Leu Arg His Gly Glu Gly Ala Trp 5

Asn Lys Glu Asn Arg Phe Cys Ser Trp Val Asp Gln Lys Leu Asn Ser 25

Glu Gly Met Glu Glu Ala Arg Asn Cys Gly Lys Gln Leu Lys Ala Leu 35 40

Asn Phe Glu Phe Asp Leu Val Phe Thr Ser Val Leu Asn Arg Ser Ile 50 55

His Thr Ala Trp Leu Ile Leu Glu Glu Leu Gly Gln Glu Trp Val Pro 65 70 75

Val Glu Ser Ser Trp Arg Leu Asn Glu Arg His Tyr Gly Ala Leu Ile 85 90

Gly Leu Asn Arg Glu Gln Met Ala Leu Asn His Gly Glu Glu Gln Val 100 105

Arg Leu Trp Arg Arg Ser Tyr Asn Val Thr Pro Pro Pro Ile Glu Glu 115 120

Ser His Pro Tyr Tyr Gln Glu Ile Tyr Asn Asp Arg Arg Tyr Lys Val 130 135

Cys Asp Val Pro Leu Asp Gln Leu Pro Arg Ser Glu Ser Leu Lys Asp 145 150

Val Leu Glu Arg Leu Leu Pro Tyr Trp Asn Glu Arg Ile Ala Pro Glu 165 170

Val Leu Arg Gly Lys Thr Ile Leu Ile Ser Ala His Gly Asn Ser Ser 180

Arg Ala Leu Leu Lys His Leu Glu Gly Ile Ser Asp Glu Asp Ile Ile 195

Asn Ile Thr Leu Pro Thr Gly Val Pro Ile Leu Leu Glu Leu Asp Glu 210 215

PCT/US2003/012946 WO 2004/042346

Asn Leu Arg Ala Val Gly Pro His Gln Phe Leu Gly Asp Gln Glu Ala 235 225 230

Ile Gln Ala Ala Ile Lys Lys Val Glu Asp Gln Gly Lys Val Lys Gln 250 245

Ala Lys Lys

<210> 2483 <211> 344 <212> PRT <213> Homo sapiens

<400> 2483

Met Ser Ala Leu Ala Ala Arg Leu Leu Gln Pro Ala His Ser Cys Ser 10

Leu Arg Leu Arg Pro Phe His Leu Ala Ala Val Arg Asn Glu Ala Val

Val Ile Ser Gly Arg Lys Leu Ala Gln Gln Ile Lys Gln Glu Val Arg

Gln Glu Val Glu Glu Trp Val Ala Ser Gly Asn Lys Arg Pro His Leu

Ser Val Ile Leu Val Gly Glu Asn Pro Ala Ser His Ser Tyr Val Leu 70

Asn Lys Thr Arg Ala Ala Ala Val Val Gly Ile Asn Ser Glu Thr Ile

Met Lys Pro Ala Ser Ile Ser Glu Glu Glu Leu Leu Asn Leu Ile Asn 100 105

Lys Leu Asn Asn Asp Asp Asn Val Asp Gly Leu Leu Val Gln Leu Pro 120

Leu Pro Glu His Ile Asp Glu Arg Arg Ile Cys Asn Ala Val Ser Pro 130

Asp Lys Asp Val Asp Gly Phe His Val Ile Asn Val Gly Arg Met Cys 145 150 155

Leu Asp Gln Tyr Ser Met Leu Pro Ala Thr Pro Trp Gly Val Trp Glu 165 170 175

Ile Ile Lys Arg Thr Gly Ile Pro Thr Leu Gly Lys Asn Val Val Val 180 185 190

Ala Gly Arg Ser Lys Asn Val Gly Met Pro Ile Ala Met Leu Leu His 195 200 205

Thr Asp Gly Ala His Glu Arg Pro Gly Gly Asp Ala Thr Val Thr Ile 210 215 220

Ser His Arg Tyr Thr Pro Lys Glu Gln Leu Lys Lys His Thr Ile Leu 225 230 235 240

Ala Asp Ile Val Ile Ser Ala Ala Gly Ile Pro Asn Leu Ile Thr Ala 245 250 255

Asp Met Ile Lys Glu Gly Ala Ala Val Ile Asp Val Gly Ile Asn Arg 260 265 270

Val His Asp Pro Val Thr Ala Lys Pro Lys Leu Val Gly Asp Val Asp 275 280 285

Phe Glu Gly Val Arg Gln Lys Ala Gly Tyr Ile Thr Pro Val Pro Gly 290 295 300

Gly Val Gly Pro Met Thr Val Ala Met Leu Met Lys Asn Thr Ile Ile 305 310 315 320

Ala Ala Lys Lys Val Leu Arg Leu Glu Glu Arg Glu Val Leu Lys Ser 325 330 335

Lys Glu Leu Gly Val Ala Thr Asn 340

<210> 2484

<211> 808

<212> PRT

<213> Homo sapiens

<400> 2484

Met Ala Glu Leu Leu Ala Ser Ala Gly Ser Ala Cys Ser Trp Asp Phe 1 5 10 15

Pro Arg Ala Pro Pro Ser Phe Pro Pro Pro Ala Ala Ser Arg Gly Gly 20 25 30

Leu Gly Gly Thr Arg Ser Phe Arg Pro His Arg Gly Ala Glu Ser Pro 35 40 45

Arg Pro Gly Arg Asp Arg Asp Gly Val Arg Val Pro Met Ala Ser Ser 50 55 60

Arg Cys Pro Ala Pro Arg Gly Cys Arg Cys Leu Pro Gly Ala Ser Leu 65 70 75 80

Ala Trp Leu Gly Thr Val Leu Leu Leu Leu Ala Asp Trp Val Leu Leu 85 90 95

Arg Thr Ala Leu Pro Arg Ile Phe Ser Leu Leu Val Pro Thr Ala Leu 100 105 110

Pro Leu Leu Arg Val Trp Ala Val Gly Leu Ser Arg Trp Ala Val Leu 115 120 125

Trp Leu Gly Ala Cys Gly Val Leu Arg Ala Thr Val Gly Ser Lys Ser 130 135 140

Glu Asn Ala Gly Ala Gln Gly Trp Leu Ala Ala Leu Lys Pro Leu Ala 145 150 155 160

Ala Ala Leu Gly Leu Ala Leu Pro Gly Leu Ala Leu Phe Arg Glu Leu 165 170 175

Ile Ser Trp Gly Ala Pro Gly Ser Ala Asp Ser Thr Arg Leu Leu His 180 185 190

Trp Gly Ser His Pro Thr Ala Phe Val Val Ser Tyr Ala Ala Ala Leu 195 200 205

Pro Ala Ala Ala Leu Trp His Lys Leu Gly Ser Leu Trp Val Pro Gly 210 215 220

Gly Gln Gly Gly Ser Gly Asn Pro Val Arg Arg Leu Leu Gly Cys Leu 225 230 235 240

Gly Ser Glu Thr Arg Arg Leu Ser Leu Phe Leu Val Leu Val Leu 245 250 255

Ser Ser Leu Gly Glu Met Ala Ile Pro Phe Phe Thr Gly Arg Leu Thr 260 265 270

Asp Trp Ile Leu Gln Asp Gly Ser Ala Asp Thr Phe Thr Arg Asn Leu 275 280 285

- Thr Leu Met Ser Ile Leu Thr Ile Ala Ser Ala Val Leu Glu Phe Val 290 295 300
- Gly Asp Gly Ile Tyr Asn Asn Thr Met Gly His Val His Ser His Leu 305 310 315 320
- Gln Gly Glu Val Phe Gly Ala Val Leu Arg Gln Glu Thr Glu Phe Phe 325 330 335
- Gln Gln Asn Gln Thr Gly Asn Ile Met Ser Arg Val Thr Glu Asp Thr 340 345 350
- Ser Thr Leu Ser Asp Ser Leu Ser Glu Asn Leu Ser Leu Phe Leu Trp 355 360 365
- Tyr Leu Val Arg Gly Leu Cys Leu Leu Gly Ile Met Leu Trp Gly Ser 370 375 380
- Val Ser Leu Thr Met Val Thr Leu Ile Thr Leu Pro Leu Leu Phe Leu 385 390 395 400
- Leu Pro Lys Lys Val Gly Lys Trp Tyr Gln Leu Leu Glu Val Gln Val
 405 410 415
- Arg Glu Ser Leu Ala Lys Ser Ser Gln Val Ala Ile Glu Ala Leu Ser 420 425 430
- Ala Met Pro Thr Val Arg Ser Phe Ala Asn Glu Glu Glu Glu Ala Gln 435 440 445
- Lys Phe Arg Glu Lys Leu Gln Glu Ile Lys Thr Leu Asn Gln Lys Glu 450 455 460
- Ala Val Ala Tyr Ala Val Asn Ser Trp Thr Thr Ser Ile Ser Gly Met 465 470 475 480
- Leu Leu Lys Val Gly Ile Leu Tyr Ile Gly Gly Gln Leu Val Thr Ser 485 490 495
- Gly Ala Val Ser Ser Gly Asn Leu Val Thr Phe Val Leu Tyr Gln Met 500 505 510

Gln Phe Thr Gln Ala Val Glu Val Leu Leu Ser Ile Tyr Pro Arg Val 515 520 525

- Gln Lys Ala Val Gly Ser Ser Glu Lys Ile Phe Glu Tyr Leu Asp Arg 530 535 540
- Thr Pro Arg Cys Pro Pro Ser Gly Leu Leu Thr Pro Leu His Leu Glu 545 550 555 560
- Gly Leu Val Gln Phe Gln Asp Val Ser Phe Ala Tyr Pro Asn Arg Pro 565 570 575
- Asp Val Leu Val Leu Gln Gly Leu Thr Phe Thr Leu Arg Pro Gly Glu 580 585 590
- Val Thr Ala Leu Val Gly Pro Asn Gly Ser Gly Lys Ser Thr Val Ala 595 600 605
- Ala Leu Leu Gln Asn Leu Tyr Gln Pro Thr Gly Gly Gln Leu Leu 610 615 620
- Asp Gly Lys Pro Leu Pro Gln Tyr Glu His Arg Tyr Leu His Arg Gln 625 630 635 640
- Val Ala Ala Val Gly Gln Glu Pro Gln Val Phe Gly Arg Ser Leu Gln 645 650 655
- Glu Asn Ile Ala Tyr Gly Leu Thr Gln Lys Pro Thr Met Glu Glu Ile
 660 665 670
- Thr Ala Ala Ala Val Lys Ser Gly Ala His Ser Phe Ile Ser Gly Leu 675 680 685
- Pro Gln Gly Tyr Asp Thr Glu Val Asp Glu Ala Gly Ser Gln Leu Ser 690 695 700
- Gly Gly Gln Arg Gln Ala Val Ala Leu Ala Arg Ala Leu Ile Arg Lys
 705 710 715 720
- Pro Cys Val Leu Ile Leu Asp Asp Ala Thr Ser Ala Leu Asp Ala Asn 725 730 735
- Ser Gln Leu Gln Val Glu Gln Leu Leu Tyr Glu Ser Pro Glu Arg Tyr 740 745 750
- Ser Arg Ser Val Leu Leu Ile Thr Gln His Leu Ser Leu Val Glu Gln

765

755 760

Ala Asp His Ile Leu Phe Leu Glu Gly Gly Ala Ile Arg Glu Gly Gly 770 775 780

Thr His Gln Gln Leu Met Glu Lys Lys Gly Cys Tyr Trp Ala Met Val 785 790 795 800

Gln Ala Pro Ala Asp Ala Pro Glu 805

<210> 2485

<211> 453

<212> PRT

<213> Homo sapiens

<400> 2485

Met Ala Arg Lys Val Val Ser Arg Lys Arg Lys Ala Pro Ala Ser Pro 1 5 10 15

Gly Ala Gly Ser Asp Ala Gln Gly Pro Gln Phe Gly Trp Asp His Ser 20 25 30

Leu His Lys Arg Lys Arg Leu Pro Pro Val Lys Arg Ser Leu Val Tyr 35 40 45

Tyr Leu Lys Asn Arg Glu Val Arg Leu Gln Asn Glu Thr Ser Tyr Ser 50 55 60

Arg Val Leu His Gly Tyr Ala Ala Gln Gln Leu Pro Ser Leu Leu Lys
65 70 75 80

Glu Arg Glu Phe His Leu Gly Thr Leu Asn Lys Val Phe Ala Ser Gln 85 90 95

Trp Leu Asn His Arg Gln Val Val Cys Gly Thr Lys Cys Asn Thr Leu 100 105 110

Phe Val Val Asp Val Gln Thr Ser Gln Ile Thr Lys Ile Pro Ile Leu 115 120 125

Lys Asp Arg Glu Pro Gly Gly Val Thr Gln Gln Gly Cys Gly Ile His

Ala Ile Glu Leu Asn Pro Ser Arg Thr Leu Leu Ala Thr Gly Gly Asp 145 150 155 160

Asn	Pro	Asn	Ser	Leu 165	Ala	Ile	Tyr	Arg	Leu 170	Pro	Thr	Leu	Asp	Pro 175	Val
Cys	Val	Gly	Asp 180	qaA	Gly	His	Lys	Asp 185	Trp	Ile	Phe	Ser	Ile 190	Ala	Trp
Ile	Ser	Asp 195	Thr	Met	Ala	Val	Ser 200	Gly	Ser	Arg	Asp	Gly 205	Ser	Met	Gly
Leu	Trp 210	Glu	Val	Thr	Asp	Asp 215	Val	Leu	Thr	Lys	Ser 220	Asp	Ala	Arg	His
Asn 225	Val	Ser	Arg	Val	Pro 230	Val	туr	Ala	His	Ile 235	Thr	His	Lys	Ala	Leu 240
Lys	Asp	Ile	Pro	Lys 245	Glu	Asp	Thr	Asn	Pro 250	Asp	Asn	Суѕ	Lys	Val 255	Arg
Ala	Leu	Ala	Phe 260	Asn	Asn	Lys	Asn	Lys 265	Glu	Leu	Gly	Ala	Val 270	Ser	Leu
Asp	Gly	Tyr 275	Phe	His	Leu	Trp	Lys 280	Ala	Glu	Asn	Thr	Leu 285	Ser	Lys	Leu
Leu	Ser 290	Thr	Lys	Leu	Pro	Tyr 295	Cys	Arg	Glu	Asn	Val 300	Cys	Leu	Ala	Tyr
Gly 305	Ser	Glu	Trp	Ser	Val 310	Tyr	Ala	Val	Gly	Ser 315	Gln	Ala	His	Val	Ser 320
Phe	Leu	Asp	Pro	Arg 325	Gln	Pro	Ser	Tyr	Asn 330	Val	Lys	Ser	Val	Cys 335	Ser
Arg	Glu	Arg	Gly 340	Ser	Gly	Ile	Arg	Ser 345		Ser	Phe	Туr	Glu 350	His	Ile
Ile	Thr	Val 355	_	Thr	Gly	Gln	Gly 360		Leu	Leu	Phe	Tyr 365		Ile	Arg
Ala	Gln 370	_	Phe	Leu	Glu	Glu 375		Leu	Ser	Ala	Cys 380		Gly	Ser	Lys
Pro 385		Leu	Ala	Gly	Glu 390	Asn	Leu	ГÀв	Leu	Thr 395		Gly	Lys	Gly	Trp 400

Leu Asn His Asp Glu Thr Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe 405 410

Phe Pro Asn Ala Val Tyr Thr His Cys Tyr Asp Ser Ser Gly Thr Lys 425 420

Leu Phe Val Ala Gly Gly Pro Leu Pro Ser Gly Leu His Gly Asn Tyr 440 435

Ala Gly Leu Trp Ser 450

<210> 2486

<211> 352 <212> PRT <213> Homo sapiens

<400> 2486

Met Glu Gly Ile Ser Ile Tyr Thr Ser Asp Asn Tyr Thr Glu Glu Met

Gly Ser Gly Asp Tyr Asp Ser Met Lys Glu Pro Cys Phe Arg Glu Glu

Asn Ala Asn Phe Asn Lys Ile Phe Leu Pro Thr Ile Tyr Ser Ile Ile 40

Phe Leu Thr Gly Ile Val Gly Asn Gly Leu Val Ile Leu Val Met Gly

Tyr Gln Lys Lys Leu Arg Ser Met Thr Asp Lys Tyr Arg Leu His Leu

Ser Val Ala Asp Leu Leu Phe Val Ile Thr Leu Pro Phe Trp Ala Val

Asp Ala Val Ala Asn Trp Tyr Phe Gly Asn Phe Leu Cys Lys Ala Val

His Val Ile Tyr Thr Val Asn Leu Tyr Ser Ser Val Leu Ile Leu Ala 120 115

Phe Ile Ser Leu Asp Arg Tyr Leu Ala Ile Val His Ala Thr Asn Ser 130 135

Gln Arg Pro Arg Lys Leu Leu Ala Glu Lys Val Val Tyr Val Gly Val 150 155 145

Trp Ile Pro Ala Leu Leu Thr Ile Pro Asp Phe Ile Phe Ala Asn 165 170 Val Ser Glu Ala Asp Asp Arg Tyr Ile Cys Asp Arg Phe Tyr Pro Asn 180 185 Asp Leu Trp Val Val Val Phe Gln Phe Gln His Ile Met Val Gly Leu 205 200 Ile Leu Pro Gly Ile Val Ile Leu Ser Cys Tyr Cys Ile Ile Ser 215 220 Lys Leu Ser His Ser Lys Gly His Gln Lys Arg Lys Ala Leu Lys Thr 230 235 225 Thr Val Ile Leu Ile Leu Ala Phe Phe Ala Cys Trp Leu Pro Tyr Tyr 250 245 Ile Gly Ile Ser Ile Asp Ser Phe Ile Leu Leu Glu Ile Ile Lys Gln 260 265 270 Gly Cys Glu Phe Glu Asn Thr Val His Lys Trp Ile Ser Ile Thr Glu 275 280 Ala Leu Ala Phe Phe His Cys Cys Leu Asn Pro Ile Leu Tyr Ala Phe 290 295 Leu Gly Ala Lys Phe Lys Thr Ser Ala Gln His Ala Leu Thr Ser Val 305 310 Ser Arg Gly Ser Ser Leu Lys Ile Leu Ser Lys Gly Lys Arg Gly Gly 325 His Ser Ser Val Ser Thr Glu Ser Glu Ser Ser Phe His Ser Ser 345 340 <210> 2487

<211> 199

<212> PRT

<213> Homo sapiens

<400> 2487

Met Ser Ser Glu Asn Cys Phe Val Ala Glu Asn Ser Ser Leu His Pro 1 5 10 15 Glu Ser Gly Gln Glu Asn Asp Ala Thr Ser Pro His Phe Ser Thr Arg

His Glu Gly Ser Phe Gln Val Pro Val Leu Cys Ala Val Met Asn Val 35 40 45

Val Phe Ile Thr Ile Leu Ile Ile Ala Leu Ile Ala Leu Ser Val Gly 50 55 60

Gln Tyr Asn Cys Pro Gly Gln Tyr Thr Phe Ser Met Pro Ser Asp Ser 65 70 75 80

His Val Ser Ser Cys Ser Glu Asp Trp Val Gly Tyr Gln Arg Lys Cys 85 90 95

Tyr Phe Ile Ser Thr Val Lys Arg Ser Trp Thr Ser Ala Gln Asn Ala 100 105 110

Cys Ser Glu His Gly Ala Thr Leu Ala Val Ile Asp Ser Glu Lys Asp 115 120 125

Met Asn Phe Leu Lys Arg Tyr Ala Gly Arg Glu Glu His Trp Val Gly 130 135 140

Leu Lys Lys Glu Pro Gly His Pro Trp Lys Trp Ser Asn Gly Lys Glu
145 - 150 - 155 - 160

Phe Asn Asn Trp Phe Asn Val Thr Gly Ser Asp Lys Cys Val Phe Leu 165 170 175

Lys Asn Thr Glu Val Ser Ser Met Glu Cys Glu Lys Asn Leu Tyr Trp 180 185 190

Ile Cys Asn Lys Pro Tyr Lys 195

<210> 2488

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2488

Met Lys Val Ser Ala Ala Ala Leu Ala Val Ile Leu Ile Ala Thr Ala 1 5 10 15

Leu Cys Ala Pro Ala Ser Ala Ser Pro Tyr Ser Ser Asp Thr Thr Pro 20 25 30

Cys Cys Phe Ala Tyr Ile Ala Arg Pro Leu Pro Arg Ala His Ile Lys 35 40 45

Glu Tyr Phe Tyr Thr Ser Gly Lys Cys Ser Asn Pro Ala Val Val Phe 50 55 60

Val Thr Arg Lys Asn Arg Gln Val Cys Ala Asn Pro Glu Lys Lys Trp 65 70 75 80

Val Arg Glu Tyr Ile Asn Ser Leu Glu Met Ser 85 90

<210> 2489

<211> 212

<212> PRT

<213> Homo sapiens

<400> 2489

Met Asn Ser Phe Ser Thr Ser Ala Phe Gly Pro Val Ala Phe Ser Leu 1 5 10 15

Gly Leu Leu Val Leu Pro Ala Ala Phe Pro Ala Pro Val Pro Pro 20 25 30

Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr 35 40 45

Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile 50 55 60

Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser 65 70 75 80

Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala 85 90 95

Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu 100 105 110

Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr 115 120 125

Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln 130 135 140

Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn 145 150 155 160

Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu 165 170 175

Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His 180 185 190

Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala 195 200 205

Leu Arg Gln Met 210

<210> 2490

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2490

Met Tyr Arg Met Gln Leu Leu Ser Cys Ile Ala Leu Ser Leu Ala Leu 1 5 10 15

Val Thr Asn Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu 20 25 30

Gln Leu Glu His Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile 35 40 45

Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe 50 55 60

Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu 65 70 75 80

Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys 85 90 95

Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile
100 105 110

Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala 115 120 125

Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe 130 135 140

Cys Gln Ser Ile Ile Ser Thr Leu Thr 145 150

<210> 2491

<211> 231

<212> PRT

<213> Homo sapiens

<400> 2491

Met Gln Asp Glu Glu Arg Tyr Met Thr Leu Asn Val Gln Ser Lys Lys 1 5 10 15

Arg Ser Ser Ala Gln Thr Ser Gln Leu Thr Phe Lys Asp Tyr Ser Val 20 25 30

Thr Leu His Trp Tyr Lys Ile Leu Leu Gly Ile Ser Gly Thr Val Asn 35 40 45

Gly Ile Leu Thr Leu Thr Leu Ile Ser Leu Ile Leu Leu Val Ser Gln 50 55 60

Gly Val Leu Leu Lys Cys Gln Lys Gly Ser Cys Ser Asn Ala Thr Gln 65 70 75 80

Tyr Glu Asp Thr Gly Asp Leu Lys Val Asn Asn Gly Thr Arg Arg Asn 85 90 95

Ile Ser Asn Lys Asp Leu Cys Ala Ser Arg Ser Ala Asp Gln Thr Val

Leu Cys Gln Ser Glu Trp Leu Lys Tyr Gln Gly Lys Cys Tyr Trp Phe 115 120 125

Ser Asn Glu Met Lys Ser Trp Ser Asp Ser Tyr Val Tyr Cys Leu Glu 130 135 140

Arg Lys Ser His Leu Leu Ile Ile His Asp Gln Leu Glu Met Ala Phe 145 150 155 160

Ile Gln Lys Asn Leu Arg Gln Leu Asn Tyr Val Trp Ile Gly Leu Asn 165 170 175

Phe Thr Ser Leu Lys Met Thr Trp Thr Trp Val Asp Gly Ser Pro Ile 180 185 190

Asp Ser Lys Ile Phe Phe Ile Lys Gly Pro Ala Lys Glu Asn Ser Cys 195 200 205

Ala Ala Ile Lys Glu Ser Lys Ile Phe Ser Glu Thr Cys Ser Ser Val 210 215 220

Phe Lys Trp Ile Cys Gln Tyr 225 230

<210> 2492

<211> 512

<212> PRT

<213> Homo sapiens

<400> 2492

Met Gly Cys Ile Lys Ser Lys Gly Lys Asp Ser Leu Ser Asp Asp Gly

5 10 15

Val Asp Leu Lys Thr Gln Pro Val Arg Asn Thr Glu Arg Thr Ile Tyr 20 25 30

Val Arg Asp Pro Thr Ser Asn Lys Gln Gln Arg Pro Val Pro Glu Ser 35 40 45

Gln Leu Leu Pro Gly Gln Arg Phe Gln Thr Lys Asp Pro Glu Glu Gln 50 55 60

Gly Asp Ile Val Val Ala Leu Tyr Pro Tyr Asp Gly Ile His Pro Asp 65 70 75 80

Asp Leu Ser Phe Lys Lys Gly Glu Lys Met Lys Val Leu Glu Glu His 85 90 95

Gly Glu Trp Trp Lys Ala Lys Ser Leu Leu Thr Lys Lys Glu Gly Phe 100 105 110

Ile Pro Ser Asn Tyr Val Ala Lys Leu Asn Thr Leu Glu Thr Glu Glu
115 120 125

Trp Phe Phe Lys Asp Ile Thr Arg Lys Asp Ala Glu Arg Gln Leu Leu 130 135 140

Ala Pro Gly Asn Ser Ala Gly Ala Phe Leu Ile Arg Glu Ser Glu Thr 145 150 155 160

Leu Lys Gly Ser Phe Ser Leu Ser Val Arg Asp Phe Asp Pro Val His
165 170 175

Gly Asp Val Ile Lys His Tyr Lys Ile Arg Ser Leu Asp Asn Gly Gly
180 185 190

- Tyr Tyr Ile Ser Pro Arg Ile Thr Phe Pro Cys Ile Ser Asp Met Ile
 195 200 205
- Lys His Tyr Gln Lys Gln Ala Asp Gly Leu Cys Arg Arg Leu Glu Lys 210 220
- Ala Cys Ile Ser Pro Lys Pro Gln Lys Pro Trp Asp Lys Asp Ala Trp 225 230 235 240
- Glu Ile Pro Arg Glu Ser Ile Lys Leu Val Lys Arg Leu Gly Ala Gly 245 250 255
- Gln Phe Gly Glu Val Trp Met Gly Tyr Tyr Asn Asn Ser Thr Lys Val 260 265 270
- Ala Val Lys Thr Leu Lys Pro Gly Thr Met Ser Val Gln Ala Phe Leu 275 280 285
- Glu Glu Ala Asn Leu Met Lys Thr Leu Gln His Asp Lys Leu Val Arg 290 295 300
- Leu Tyr Ala Val Val Thr Arg Glu Glu Pro Ile Tyr Ile Ile Thr Glu 305 310 315 320
- Tyr Met Ala Lys Gly Ser Leu Leu Asp Phe Leu Lys Ser Asp Glu Gly 325 330 335
- Gly Lys Val Leu Leu Pro Lys Leu Ile Asp Phe Ser Ala Gln Ile Ala 340 345 350
- Glu Gly Met Ala Tyr Ile Glu Arg Lys Asn Tyr Ile His Arg Asp Leu 355 360 365
- Arg Ala Ala Asn Val Leu Val Ser Glu Ser Leu Met Cys Lys Ile Ala 370 375 380
- Asp Phe Gly Leu Ala Arg Val Ile Glu Asp Asn Glu Tyr Thr Ala Arg 385 390 395 400
- Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ile Asn 405 410 415

Phe Gly Cys Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu 420 425 430

Leu Tyr Glu Ile Val Thr Tyr Gly Lys Ile Pro Tyr Pro Gly Arg Thr 435 440 445

Asn Ala Asp Val Met Thr Ala Leu Ser Gln Gly Tyr Arg Met Pro Arg
450 460

Val Glu Asn Cys Pro Asp Glu Leu Tyr Asp Ile Met Lys Met Cys Trp 465 470 475 480

Lys Glu Lys Ala Glu Glu Arg Pro Thr Phe Asp Tyr Leu Gln Ser Val 485 490 495

Leu Asp Asp Phe Tyr Thr Ala Thr Glu Gly Gln Tyr Gln Gln Gln Pro 500 505 510

<210> 2493

<211> 272

<212> PRT

<213> Homo sapiens

<400> 2493

Met Asp Ser Tyr Leu Leu Met Trp Gly Leu Leu Thr Phe Ile Met Val 1 5 10 15

Pro Gly Cys Gln Ala Glu Leu Cys Asp Asp Pro Pro Glu Ile Pro 20 25 30

His Ala Thr Phe Lys Ala Met Ala Tyr Lys Glu Gly Thr Met Leu Asn 35 40 45

Cys Glu Cys Lys Arg Gly Phe Arg Arg Ile Lys Ser Gly Ser Leu Tyr 50 55 60

Met Leu Cys Thr Gly Asn Ser Ser His Ser Ser Trp Asp Asn Gln Cys 65 70 75 80

Gln Cys Thr Ser Ser Ala Thr Arg Asn Thr Thr Lys Gln Val Thr Pro 85 90 95

Gln Pro Glu Glu Gln Lys Glu Arg Lys Thr Thr Glu Met Gln Ser Pro 100 105 110

Met Gln Pro Val Asp Gln Ala Ser Leu Pro Gly His Cys Arg Glu Pro

115

120

125

Pro Pro Trp Glu Asn Glu Ala Thr Glu Arg Ile Tyr His Phe Val Val 130 135 140

Gly Gln Met Val Tyr Tyr Gln Cys Val Gln Gly Tyr Arg Ala Leu His 145 150 155 160

Arg Gly Pro Ala Glu Ser Val Cys Lys Met Thr His Gly Lys Thr Arg

Trp Thr Gln Pro Gln Leu Ile Cys Thr Gly Glu Met Glu Thr Ser Gln 180 185 190

Phe Pro Gly Glu Glu Lys Pro Gln Ala Ser Pro Glu Gly Arg Pro Glu 195 200 205

Ser Glu Thr Ser Cys Leu Val Thr Thr Thr Asp Phe Gln Ile Gln Thr 210 215 220

Glu Met Ala Ala Thr Met Glu Thr Ser Ile Phe Thr Thr Glu Tyr Gln 225 230 235 240

Val Ala Val Ala Gly Cys Val Phe Leu Leu Ile Ser Val Leu Leu Leu 245 250 255

Ser Gly Leu Thr Trp Gln Arg Arg Gln Arg Lys Ser Arg Arg Thr Ile 260 265 270

<210> 2494

<211> 92

<212> PRT

<213> Homo sapiens

<400> 2494

Met Lys Leu Cys Val Thr Val Leu Ser Leu Leu Met Leu Val Ala Ala 1 5 10 15

Phe Cys Ser Pro Ala Leu Ser Ala Pro Met Gly Ser Asp Pro Pro Thr 20 25 30

Ala Cys Cys Phe Ser Tyr Thr Ala Arg Lys Leu Pro Arg Asn Phe Val

Val Asp Tyr Tyr Glu Thr Ser Ser Leu Cys Ser Gln Pro Ala Val Val 50 55 60

Phe Gln Thr Lys Arg Ser Lys Gln Val Cys Ala Asp Pro Ser Glu Ser 65 70 75 80

Trp Val Gln Glu Tyr Val Tyr Asp Leu Glu Leu Asn 85 90

<210> 2495

<211> 532

<212> PRT

<213> Homo sapiens

<400> 2495

Met Met Met Val Arg Arg Gly Leu Leu Ala Trp Ile Ser Arg Val Val 1 5 10 15

Val Leu Leu Val Leu Leu Cys Cys Ala Ile Ser Val Leu Tyr Met Leu
20 25 30

Ala Cys Thr Pro Lys Gly Asp Glu Glu Gln Leu Ala Leu Pro Arg Ala
35 40 45

Asn Ser Pro Thr Gly Lys Glu Gly Tyr Gln Ala Val Leu Gln Glu Trp 50 55 60

Glu Glu Gln His Arg Asn Tyr Val Ser Ser Leu Lys Arg Gln Ile Ala 65 70 75 80

Gln Leu Lys Glu Glu Leu Gln Glu Arg Ser Glu Gln Leu Arg Asn Gly 85 90 95

Gln Tyr Gln Ala Ser Asp Ala Ala Gly Leu Gly Leu Asp Arg Ser Pro 100 105 110

Pro Glu Lys Thr Gln Ala Asp Leu Leu Ala Phe Leu His Ser Gln Val 115 120 125

Asp Lys Ala Glu Val Asn Ala Gly Val Lys Leu Ala Thr Glu Tyr Ala 130 135 140

Ala Val Pro Phe Asp Ser Phe Thr Leu Gln Lys Val Tyr Gln Leu Glu 145 150 155 160

Thr Gly Leu Thr Arg His Pro Glu Glu Lys Pro Val Arg Lys Asp Lys
165 170 175

Arg Asp Glu Leu Val Glu Ala Ile Glu Ser Ala Leu Glu Thr Leu Asn

180 185 190

Asn	Pro	Ala	Glu	Asn	Ser	Pro	Asn	His	Arg	Pro	Tyr	Thr	Ala	Ser	Asp
		195					200					205			

- Phe Ile Glu Gly Ile Tyr Arg Thr Glu Arg Asp Lys Gly Thr Leu Tyr 210 215 220
- Glu Leu Thr Phe Lys Gly Asp His Lys His Glu Phe Lys Arg Leu Ile 225 230 235 240
- Leu Phe Arg Pro Phe Gly Pro Ile Met Lys Val Lys Asn Glu Lys Leu 245 250 255
- Asn Met Ala Asn Thr Leu Ile Asn Val Ile Val Pro Leu Ala Lys Arg 260 265 270
- Val Asp Lys Phe Arg Gln Phe Met Gln Asn Phe Arg Glu Met Cys Ile 275 280 285
- Glu Gln Asp Gly Arg Val His Leu Thr Val Val Tyr Phe Gly Lys Glu 290 295 300
- Glu Ile Asn Glu Val Lys Gly Ile Leu Glu Asn Thr Ser Lys Ala Ala 305 310 315 320
- Asn Phe Arg Asn Phe Thr Phe Ile Gln Leu Asn Gly Glu Phe Ser Arg 325 330 335
- Gly Lys Gly Leu Asp Val Gly Ala Arg Phe Trp Lys Gly Ser Asn Val 340 345 350
- Leu Leu Phe Phe Cys Asp Val Asp Ile Tyr Phe Thr Ser Glu Phe Leu 355 360 365
- Asn Thr Cys Arg Leu Asn Thr Gln Pro Gly Lys Lys Val Phe Tyr Pro 370 375 380
- Val Leu Phe Ser Gln Tyr Asn Pro Gly Ile Ile Tyr Gly His His Asp 385 390 395 400
- Ala Val Pro Pro Leu Glu Gln Gln Leu Val Ile Lys Lys Glu Thr Gly
 405 410 415
- Phe Trp Arg Asp Phe Gly Phe Gly Met Thr Cys Gln Tyr Arg Ser Asp 420 425 430

Phe Ile Asn Ile Gly Gly Phe Asp Leu Asp Ile Lys Gly Trp Gly Gly
435 440 445

Glu Asp Val His Leu Tyr Arg Lys Tyr Leu His Ser Asn Leu Ile Val 450 455 460

Val Arg Thr Pro Val Arg Gly Leu Phe His Leu Trp His Glu Lys Arg 465 470 475 480

Cys Met Asp Glu Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln Ser 485 490 495

Lys Ala Met Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu Val Phe 500 505 510

Arg His Glu Ile Glu Ala His Leu Arg Lys Gln Lys Gln Lys Thr Ser 515 520 525

Ser Lys Lys Thr 530

<210> 2496

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2496

Met Lys Lys Ser Gly Val Leu Phe Leu Leu Gly Ile Ile Leu Leu Val 1 5 10 15

Leu Ile Gly Val Gln Gly Thr Pro Val Val Arg Lys Gly Arg Cys Ser 20 25 30

Cys Ile Ser Thr Asn Gln Gly Thr Ile His Leu Gln Ser Leu Lys Asp 35 40 45

Leu Lys Gln Phe Ala Pro Ser Pro Ser Cys Glu Lys Ile Glu Ile Ile 50 55 60

Ala Thr Leu Lys Asn Gly Val Gln Thr Cys Leu Asn Pro Asp Ser Ala 65 70 75 80

Asp Val Lys Glu Leu Ile Lys Lys Trp Glu Lys Gln Val Ser Gln Lys 85 90 95

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Lys Lys Gln Lys Asn Gly Lys Lys His Gln Lys Lys Lys Val Leu Lys

Val Arg Lys Ser Gln Arg Ser Arg Gln Lys Lys Thr Thr 115

<210> 2497

<211> 98 <212> PRT

<213> Homo sapiens

<400> 2497

Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu 10

Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys 25

Ile Ser Ile Ser Asn Gln Pro Val Asn Pro Arg Ser Leu Glu Lys Leu 40

Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Val Glu Ile Ile Ala

Thr Met Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys 70

Ala Ile Lys Asn Leu Leu Lys Ala Val Ser Lys Glu Met Ser Lys Arg

Ser Pro

<210> 2498

<211> 155

<212> PRT

<213> Homo sapiens

<400> 2498

Met Thr Pro Gly Lys Thr Ser Leu Val Ser Leu Leu Leu Leu Ser

Leu Glu Ala Ile Val Lys Ala Gly Ile Thr Ile Pro Arg Asn Pro Gly 30

Cys Pro Asn Ser Glu Asp Lys Asn Phe Pro Arg Thr Val Met Val Asn 40 45

Leu Asn Ile His Asn Arg Asn Thr Asn Thr Asn Pro Lys Arg Ser Ser

Asp Tyr Tyr Asn Arg Ser Thr Ser Pro Trp Asn Leu His Arg Asn Glu 70

Asp Pro Glu Arg Tyr Pro Ser Val Ile Trp Glu Ala Lys Cys Arg His 85 90

Leu Gly Cys Ile Asn Ala Asp Gly Asn Val Asp Tyr His Met Asn Ser 105 100

Val Pro Ile Gln Glu Ile Leu Val Leu Arg Arg Glu Pro Pro His 120

Cys Pro Asn Ser Phe Arg Leu Glu Lys Ile Leu Val Ser Val Gly Cys 135

Thr Cys Val Thr Pro Ile Val His His Val Ala 150

<210> 2499 <211> 162

<212> PRT

<213> Homo sapiens

<400> 2499

Met Arg Ile Ser Lys Pro His Leu Arg Ser Ile Ser Ile Gln Cys Tyr 5

Leu Cys Leu Leu Leu Asn Ser His Phe Leu Thr Glu Ala Gly Ile His 20

Val Phe Ile Leu Gly Cys Phe Ser Ala Gly Leu Pro Lys Thr Glu Ala 40 45 35

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile 55 50

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His 80 70 65

Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln 85 90

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu

105 110 100

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val 120 115

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile 135

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn 155 150

Thr Ser

<210> 2500

<211> 178 <212> PRT <213> Homo sapiens

<400> 2500

Met His Ser Ser Ala Leu Leu Cys Cys Leu Val Leu Leu Thr Gly Val 10

Arg Ala Ser Pro Gly Gln Gly Thr Gln Ser Glu Asn Ser Cys Thr His 20

Phe Pro Gly Asn Leu Pro Asn Met Leu Arg Asp Leu Arg Asp Ala Phe 35

Ser Arg Val Lys Thr Phe Phe Gln Met Lys Asp Gln Leu Asp Asn Leu 50 55

Leu Leu Lys Glu Ser Leu Leu Glu Asp Phe Lys Gly Tyr Leu Gly Cys 70 75 65

Gln Ala Leu Ser Glu Met Ile Gln Phe Tyr Leu Glu Glu Val Met Pro 85 90

Gln Ala Glu Asn Gln Asp Pro Asp Ile Lys Ala His Val Asn Ser Leu 100 105

Gly Glu Asn Leu Lys Thr Leu Arg Leu Arg Leu Arg Arg Cys His Arg 125 120 115

Phe Leu Pro Cys Glu Asn Lys Ser Lys Ala Val Glu Gln Val Lys Asn 135 130

Ala Phe Asn Lys Leu Gln Glu Lys Gly Ile Tyr Lys Ala Met Ser Glu 145 150 155 160

Phe Asp Ile Phe Ile Asn Tyr Ile Glu Ala Tyr Met Thr Met Lys Ile 165 170 175

Arg Asn

<210> 2501

<211> 166

<212> PRT

<213> Homo sapiens

<400> 2501

Met Lys Tyr Thr Ser Tyr Ile Leu Ala Phe Gln Leu Cys Ile Val Leu 1 5 10 15

Gly Ser Leu Gly Cys Tyr Cys Gln Asp Pro Tyr Val Lys Glu Ala Glu 20 25 30

Asn Leu Lys Lys Tyr Phe Asn Ala Gly His Ser Asp Val Ala Asp Asn 35 40 45

Gly Thr Leu Phe Leu Gly Ile Leu Lys Asn Trp Lys Glu Glu Ser Asp 50 55 60

Arg Lys Ile Met Gln Ser Gln Ile Val Ser Phe Tyr Phe Lys Leu Phe 65 70 75 80

Lys Asn Phe Lys Asp Asp Gln Ser Ile Gln Lys Ser Val Glu Thr Ile 85 90 95

Lys Glu Asp Met Asn Val Lys Phe Phe Asn Ser Asn Lys Lys Lys Arg

Asp Asp Phe Glu Lys Leu Thr Asn Tyr Ser Val Thr Asp Leu Asn Val

Gln Arg Lys Ala Ile His Glu Leu Ile Gln Val Met Ala Glu Leu Ser 130 135 140

Pro Ala Ala Lys Thr Gly Lys Arg Lys Arg Ser Gln Met Leu Phe Gln 145 150 155 160

Gly Arg Arg Ala Ser Gln

165

_	2	1	a	>	າ	5	n	2

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2502

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr 1 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr 20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn 35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu 50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu 85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser 260 265

<210> 2503

<211> 210

<212> PRT

<213> Homo sapiens

<400> 2503

Met Arg Pro Arg Leu Trp Leu Leu Leu Ala Ala Gln Leu Thr Val Leu 1 5 10 15

His Gly Asn Ser Val Leu Gln Gln Thr Pro Ala Tyr Ile Lys Val Gln 20 25 30

Thr Asn Lys Met Val Met Leu Ser Cys Glu Ala Lys Ile Ser Leu Ser 35 40 45

Asn Met Arg Ile Tyr Trp Leu Arg Gln Arg Gln Ala Pro Ser Ser Asp 50 55 60

Ser His His Glu Phe Leu Ala Leu Trp Asp Ser Ala Lys Gly Thr Ile 70 75 80

His Gly Glu Glu Val Glu Gln Glu Lys Ile Ala Val Phe Arg Asp Ala 85 90 95

Ser Arg Phe Ile Leu Asn Leu Thr Ser Val Lys Pro Glu Asp Ser Gly 100 105 110

Ile Tyr Phe Cys Met Ile Val Gly Ser Pro Glu Leu Thr Phe Gly Lys
115 120 125

Gly Thr Gln Leu Ser Val Val Asp Phe Leu Pro Thr Thr Ala Gln Pro 130 135 140

Thr Lys Lys Ser Thr Leu Lys Lys Arg Val Cys Arg Leu Pro Arg Pro

145 150 155 160

Glu Thr Gln Lys Gly Pro Leu Cys Ser Pro Ile Thr Leu Gly Leu Leu 165 170 175

Val Ala Gly Val Leu Val Leu Val Ser Leu Gly Val Ala Ile His 180 185 190

Leu Cys Cys Arg Arg Arg Arg Ala Arg Leu Arg Phe Met Lys Gln Phe 195 200 205

Tyr Lys 210

<210> 2504

<211> 458

<212> PRT

<213> Homo sapiens

<400> 2504

Met Asn Arg Gly Val Pro Phe Arg His Leu Leu Leu Val Leu Gln Leu 1 5 10 15

Ala Leu Leu Pro Ala Ala Thr Gln Gly Lys Lys Val Val Leu Gly Lys
20 25 30

Lys Gly Asp Thr Val Glu Leu Thr Cys Thr Ala Ser Gln Lys Lys Ser 35 40 45

Ile Gln Phe His Trp Lys Asn Ser Asn Gln Ile Lys Ile Leu Gly Asn 50 55 60

Gln Gly Ser Phe Leu Thr Lys Gly Pro Ser Lys Leu Asn Asp Arg Ala 65 70 75 80

Asp Ser Arg Arg Ser Leu Trp Asp Gln Gly Asn Phe Pro Leu Ile Ile 85 90 95

Lys Asn Leu Lys Ile Glu Asp Ser Asp Thr Tyr Ile Cys Glu Val Glu 100 105 110

Asp Gln Lys Glu Glu Val Gln Leu Leu Val Phe Gly Leu Thr Ala Asn 115 120 125

Ser Asp Thr His Leu Leu Gln Gly Gln Ser Leu Thr Leu Thr Leu Glu 130 135 140

Ser 145	Pro	Pro	Gly	Ser	Ser 150	Pro	Ser	Val	Gln	Cys 155	Arg	Ser	Pro	Arg	Gly 160
Lys	Asn	Ile	Gln	Gly 165	Gly	Lys	Thr	Leu	Ser 170	Val	Ser	Gln	Leu	Glu 175	Leu
Gln	Asp	Ser	Gly 180	Thr	Trp	Thr	Cys	Thr 185	Val	Leu	Gln	Asn	Gln 190	Lys	Lys
Val	Glu	Phe 195	Lys	Ile	Asp	Ile	Val 200	Val	Leu	Ala	Phe	Gln 205	Lys	Ala	Ser
Ser	Ile 210	Val	Tyr	Lys	Lys	Glu 215	Gly	Glu	Gln	Val	Glu 220	Phe	Ser	Phe	Pro
Leu 225	Ala	Phe	Thr	Val	Glu 230	Lys	Leu	Thr	Gly	Ser 235	Gly	Glu	Leu	Trp	Trp 240
Gln	Ala	Glu	Arg	Ala 245	Ser	Ser	Ser	Lys	Ser 250	Trp	Ile	Thr	Phe	Asp 255	Leu
Lys	Asn	Lys	Glu 260	Val	Ser	Val	Lys	Arg 265	Val	Thr	Gln	Asp	Pro 270	Lys	Leu
Glr	Met	Gly 275		Lys	Leu	Pro	Leu 280		Leu	Thr	Leu	Pro 285		Ala	Leu
Pro	Gln 290	_	Ala	Gly	Ser	Gly 295		Leu	Thr	Leu	Ala 300	Leu	Glu	Ala	Lys
Th:	Gly	Lys	Leu	His	Gln 310		Val	Asn	Leu	Val 315		Met	Arg	Ala	Thr 320
Glr	ı Leu	Gln	Lys	Asn 325		Thr	. Cys	Glu	Val 330		Gly	Pro	Thr	Ser 335	
Lys	s Leu	Met	Leu 340		Leu	Lys	Leu	Glu 345		Lys	Glu	Ala	Lys 350		Ser
Lys	a Arg	355		Ala	Val	Trp	7 Val 360		. Asn	Pro	Glu	Ala 365		Met	Tr
Glı	1 Cys		Leu	Ser	Asp	Ser 375		Glr	val	Leu	Leu 380		Ser	Asn	Ile

Lys Val Leu Pro Thr Trp Ser Thr Pro Val Gln Pro Met Ala Leu Ile 385 390 395 400

Val Leu Gly Gly Val Ala Gly Leu Leu Phe Ile Gly Leu Gly Ile 405 410 415

Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln Ala Glu Arg Met
420 425 430

Ser Gln Ile Lys Arg Leu Leu Ser Glu Lys Lys Thr Cys Gln Cys Pro 435 440 445

His Arg Phe Gln Lys Thr Cys Ser Pro Ile 450 455

<210> 2505

<211> 368

<212> PRT

<213> Homo sapiens

<400> 2505

Met Val Leu Glu Val Ser Asp His Gln Val Leu Asn Asp Ala Glu Val 1 5 10 15

Ala Ala Leu Leu Glu Asn Phe Ser Ser Ser Tyr Asp Tyr Gly Glu Asn 20 25 30

Glu Ser Asp Ser Cys Cys Thr Ser Pro Pro Cys Pro Gln Asp Phe Ser

Leu Asn Phe Asp Arg Ala Phe Leu Pro Ala Leu Tyr Ser Leu Leu Phe 50 55 60

Leu Leu Gly Leu Leu Gly Asn Gly Ala Val Ala Ala Val Leu Leu Ser 70 75 80

Arg Arg Thr Ala Leu Ser Ser Thr Asp Thr Phe Leu Leu His Leu Ala 85 90 95

Val Ala Asp Thr Leu Leu Val Leu Thr Leu Pro Leu Trp Ala Val Asp
100 105 110

Ala Ala Val Gln Trp Val Phe Gly Ser Gly Leu Cys Lys Val Ala Gly
115 120 125

Ala Leu Phe Asn Ile Asn Phe Tyr Ala Gly Ala Leu Leu Leu Ala Cys 130 135 140 Ile Ser Phe Asp Arg Tyr Leu Asn Ile Val His Ala Thr Gln Leu Tyr
145 150 155 160

- Arg Arg Gly Pro Pro Ala Arg Val Thr Leu Thr Cys Leu Ala Val Trp
 165 170 175
- Gly Leu Cys Leu Leu Phe Ala Leu Pro Asp Phe Ile Phe Leu Ser Ala 180 185 190
- His His Asp Glu Arg Leu Asn Ala Thr His Cys Gln Tyr Asn Phe Pro
- Gln Val Gly Arg Thr Ala Leu Arg Val Leu Gln Leu Val Ala Gly Phe 210 215 220
- Leu Leu Pro Leu Leu Val Met Ala Tyr Cys Tyr Ala His Ile Leu Ala 225 230 235 240
- Val Leu Leu Val Ser Arg Gly Gln Arg Arg Leu Arg Ala Met Arg Leu 245 250 255
- Val Val Val Val Val Ala Phe Ala Leu Cys Trp Thr Pro Tyr His
 260 265 270
- Leu Val Val Leu Val Asp Ile Leu Met Asp Leu Gly Ala Leu Ala Arg
 275 280 285
- Asn Cys Gly Arg Glu Ser Arg Val Asp Val Ala Lys Ser Val Thr Ser 290 295 300
- Gly Leu Gly Tyr Met His Cys Cys Leu Asn Pro Leu Leu Tyr Ala Phe 305 310 315 320
- Val Gly Val Lys Phe Arg Glu Arg Met Trp Met Leu Leu Leu Arg Leu 325 330 335
- Gly Cys Pro Asn Gln Arg Gly Leu Gln Arg Gln Pro Ser Ser Arg 340 345 350
- Arg Asp Ser Ser Trp Ser Glu Thr Ser Glu Ala Ser Tyr Ser Gly Leu 355 360 365
- <210> 2506
- <211> 107
- <212> PRT

-12th

<213> Homo sapiens

<400> 2506

Met Ala Arg Ala Ala Leu Ser Ala Ala Pro Ser Asn Pro Arg Leu Leu 1 5 10 15

Arg Val Ala Leu Leu Leu Leu Leu Val Ala Ala Gly Arg Arg Ala 20 25 30

Ala Gly Ala Ser Val Ala Thr Glu Leu Arg Cys Gln Cys Leu Gln Thr 35 40 45

Leu Gln Gly Ile His Pro Lys Asn Ile Gln Ser Val Asn Val Lys Ser 50 55 60

Pro Gly Pro His Cys Ala Gln Thr Glu Val Ile Ala Thr Leu Lys Asn 65 70 75 80

Gly Arg Lys Ala Cys Leu Asn Pro Ala Ser Pro Ile Val Lys Lys Ile 85 90 95

Ile Glu Lys Met Leu Asn Ser Asp Lys Ser Asn 100 105

<210> 2507

<211> 558

<212> PRT

<213> Homo sapiens

<400> 2507

Met Ala Ala Leu Thr Arg Asp Pro Gln Phe Gln Lys Leu Gln Gln Trp

5 10 15

Tyr Arg Glu His Arg Ser Glu Leu Asn Leu Arg Arg Leu Phe Asp Ala 20 25 30

Asn Lys Asp Arg Phe Asn His Phe Ser Leu Thr Leu Asn Thr Asn His 35 40 45

Gly His Ile Leu Val Asp Tyr Ser Lys Asn Leu Val Thr Glu Asp Val 50 55 60

Met Arg Met Leu Val Asp Leu Ala Lys Ser Arg Gly Val Glu Ala Ala 65 70 75 80

Arg Glu Arg Met Phe Asn Gly Glu Lys Ile Asn Tyr Thr Glu Gly Arg 85 90 95

Ala Val Leu His Val Ala Leu Arg Asn Arg Ser Asn Thr Pro Ile Leu

- Val Asp Gly Lys Asp Val Met Pro Glu Val Asn Lys Val Leu Asp Lys 115 120 125
- Met Lys Ser Phe Cys Gln Arg Val Arg Ser Gly Asp Trp Lys Gly Tyr 130 135 140
- Thr Gly Lys Thr Ile Thr Asp Val Ile Asn Ile Gly Ile Gly Gly Ser 145 150 155 160
- Asp Leu Gly Pro Leu Met Val Thr Glu Ala Leu Lys Pro Tyr Ser Ser 165 170 175
- Gly Gly Pro Arg Val Trp Tyr Val Ser Asn Ile Asp Gly Thr His Ile 180 185 190
- Ala Lys Thr Leu Ala Gln Leu Asn Pro Glu Ser Ser Leu Phe Ile Ile 195 200 205
- Ala Ser Lys Thr Phe Thr Thr Gln Glu Thr Ile Thr Asn Ala Glu Thr 210 220
- Ala Lys Glu Trp Phe Leu Gln Ala Ala Lys Asp Pro Ser Ala Val Ala 225 230 235 240
- Lys His Phe Val Ala Leu Ser Thr Asn Thr Thr Lys Val Lys Glu Phe 245 250 255
- Gly Ile Asp Pro Gln Asn Met Phe Glu Phe Trp Asp Trp Val Gly Gly 260 265 270
- Arg Tyr Ser Leu Trp Ser Ala Ile Gly Leu Ser Ile Ala Leu His Val 275 280 285
- Gly Phe Asp Asn Phe Glu Gln Leu Leu Ser Gly Ala His Trp Met Asp 290 295 300
- Gln His Phe Arg Thr Thr Pro Leu Glu Lys Asn Ala Pro Val Leu Leu 305 310 315 320
- Ala Leu Leu Gly Ile Trp Tyr Ile Asn Cys Phe Gly Cys Glu Thr His 325

**

Ala Met Leu Pro Tyr Asp Gln Tyr Leu His Arg Phe Ala Ala Tyr Phe 340 345 350

Gln Gln Gly Asp Met Glu Ser Asn Gly Lys Tyr Ile Thr Lys Ser Gly 355 360 365

Thr Arg Val Asp His Gln Thr Gly Pro Ile Val Trp Gly Glu Pro Gly 370 380

Thr Asn Gly Gln His Ala Phe Tyr Gln Leu Ile His Gln Gly Thr Lys 385 390 395 400

Met Ile Pro Cys Asp Phe Leu Ile Pro Val Gln Thr Gln His Pro Ile 405 410 415

Arg Lys Gly Leu His His Lys Ile Leu Leu Ala Asn Phe Leu Ala Gln 420 425 430

Thr Glu Ala Leu Met Arg Gly Lys Ser Thr Glu Glu Ala Arg Lys Glu
435 440 445

Leu Gln Ala Ala Gly Lys Ser Pro Glu Asp Leu Glu Arg Leu Leu Pro 450 455

His Lys Val Phe Glu Gly Asn Arg Pro Thr Asn Ser Ile Val Phe Thr 465 470 475 480

Lys Leu Thr Pro Phe Met Leu Gly Ala Leu Val Ala Met Tyr Glu His 485 490 495

Lys Ile Phe Val Gln Gly Ile Ile Trp Asp Ile Asn Ser Phe Asp Gln 500 505 510

Trp Gly Val Glu Leu Gly Lys Gln Leu Ala Lys Lys Ile Glu Pro Glu
515 520 525

Leu Asp Gly Ser Ala Gln Val Thr Ser His Asp Ala Ser Thr Asn Gly 530 535 540

Leu Ile Asn Phe Ile Lys Gln Gln Arg Glu Ala Arg Val Gln 545 550 555

<210> 2508

<211> 323

<212> PRT

<213> Homo sapiens

<400> 2508

Met Trp Pro Leu Val Ala Ala Leu Leu Gly Ser Ala Cys Cys Gly

1 5 10 15

Ser Ala Gln Leu Leu Phe Asn Lys Thr Lys Ser Val Glu Phe Thr Phe 20 25 30

Cys Asn Asp Thr Val Val Ile Pro Cys Phe Val Thr Asn Met Glu Ala 35 40 45

Gln Asn Thr Thr Glu Val Tyr Val Lys Trp Lys Phe Lys Gly Arg Asp 50 55 60

Ile Tyr Thr Phe Asp Gly Ala Leu Asn Lys Ser Thr Val Pro Thr Asp 70 75 80

Phe Ser Ser Ala Lys Ile Glu Val Ser Gln Leu Leu Lys Gly Asp Ala 85 90 95

Ser Leu Lys Met Asp Lys Ser Asp Ala Val Ser His Thr Gly Asn Tyr
100 105 110

Thr Cys Glu Val Thr Glu Leu Thr Arg Glu Gly Glu Thr Ile Ile Glu 115 120 125

Leu Lys Tyr Arg Val Val Ser Trp Phe Ser Pro Asn Glu Asn Ile Leu 130 135 140

Ile Val Ile Phe Pro Ile Phe Ala Ile Leu Leu Phe Trp Gly Gln Phe 145 150 155 160

Gly Ile Lys Thr Leu Lys Tyr Arg Ser Gly Gly Met Asp Glu Lys Thr 165 170 175

Ile Ala Leu Leu Val Ala Gly Leu Val Ile Thr Val Ile Val Ile Val 180 185 190

Gly Ala Ile Leu Phe Val Pro Gly Glu Tyr Ser Leu Lys Asn Ala Thr 195 200 205

Gly Leu Gly Leu Ile Val Thr Ser Thr Gly Ile Leu Ile Leu Leu His 210 215 220

Tyr Tyr Val Phe Ser Thr Ala Ile Gly Leu Thr Ser Phe Val Ile Ala 225 230 235 240 Ile Leu Val Ile Gln Val Ile Ala Tyr Ile Leu Ala Val Val Gly Leu 245 250 255

Ser Leu Cys Ile Ala Ala Cys Ile Pro Met His Gly Pro Leu Leu Ile 260 265 270

Ser Gly Leu Ser Ile Leu Ala Leu Ala Gln Leu Leu Gly Leu Val Tyr 275 280 285

Met Lys Phe Val Ala Ser Asn Gln Lys Thr Ile Gln Pro Pro Arg Lys 290 295 300

Ala Val Glu Glu Pro Leu Asn Ala Phe Lys Glu Ser Lys Gly Met Met 305 310 315 320

Asn Asp Glu

<210> 2509

<211> 362

<212> PRT

<213> Homo sapiens

<400> 2509

Met Ala Pro Arg Ser Leu Leu Leu Leu Leu Ser Gly Ala Leu Ala Leu 1 5 10 15

Thr Asp Thr Trp Ala Gly Ser His Ser Leu Arg Tyr Phe Ser Thr Ala 20 25 30

Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Tyr Ile Ala Val Glu Tyr 35 40 45

Val Asp Asp Thr Gln Phe Leu Arg Phe Asp Ser Asp Ala Ala Ile Pro . 50 60

Arg Met Glu Pro Arg Glu Pro Trp Val Glu Gln Glu Gly Pro Gln Tyr
65 70 75 80

Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala Asn Ala Gln Thr Asp Arg
85 90 95

Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr Asn Gln Ser Glu Ala Gly
100 105 110

Ser His Thr Leu Gln Gly Met Asn Gly Cys Asp Met Gly Pro Asp Gly 115 120 125

- Arg Leu Leu Arg Gly Tyr His Gln His Ala Tyr Asp Gly Lys Asp Tyr 130 135 140
- Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Val 145 150 155 160
- Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala Glu Glu Tyr Ala Glu Glu 165 170 175
- Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu Glu Leu Leu Arg Arg Tyr 180 185 190
- Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Ala 195 200 205
- His Val Ala His His Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys 210 220
- Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg 225 230 235 240
- Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro 245 250 255
- Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala Val Val Pro Ser 260 265 270
- Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro 275 280 285
- Gln Pro Leu Ile Leu Arg Trp Glu Gln Ser Pro Gln Pro Thr Ile Pro 290 295 300
- Ile Val Gly Ile Val Ala Gly Leu Val Val Leu Gly Ala Val Val Thr 305 310 315 320
- Gly Ala Val Val Ala Ala Val Met Trp Arg Lys Lys Ser Ser Asp Arg 325 330 335
- Asn Arg Gly Ser Tyr Ser Gln Ala Ala Val Thr Asp Ser Ala Gln Gly 340 345 350

Ser Gly Val Ser Leu Thr Ala Asn Lys Val

4

355 360

<210> 2510

<211> 604

<212> PRT

<213> Homo sapiens

<400> 2510

Met Leu Ala Arg Ala Leu Leu Cys Ala Val Leu Ala Leu Ser His
1 10 15

Thr Ala Asn Pro Cys Cys Ser His Pro Cys Gln Asn Arg Gly Val Cys 20 25 30

Met Ser Val Gly Phe Asp Gln Tyr Lys Cys Asp Cys Thr Arg Thr Gly 35 40 45

Phe Tyr Gly Glu Asn Cys Ser Thr Pro Glu Phe Leu Thr Arg Ile Lys 50 55 60

Leu Phe Leu Lys Pro Thr Pro Asn Thr Val His Tyr Ile Leu Thr His 65 70 75 80

Phe Lys Gly Phe Trp Asn Val Val Asn Asn Ile Pro Phe Leu Arg Asn 85 90 95

Ala Ile Met Ser Tyr Val Leu Thr Ser Arg Ser His Leu Ile Asp Ser 100 105 110

Pro Pro Thr Tyr Asn Ala Asp Tyr Gly Tyr Lys Ser Trp Glu Ala Phe 115 120 125

Ser Asn Leu Ser Tyr Tyr Thr Arg Ala Leu Pro Pro Val Pro Asp Asp 130 135 140

Cys Pro Thr Pro Leu Gly Val Lys Gly Lys Lys Gln Leu Pro Asp Ser 145 150 155 160

Asn Glu Ile Val Glu Lys Leu Leu Leu Arg Arg Lys Phe Ile Pro Asp 165 170 175

Pro Gln Gly Ser Asn Met Met Phe Ala Phe Phe Ala Gln His Phe Thr 180 185 190

His Gln Phe Phe Lys Thr Asp His Lys Arg Gly Pro Ala Phe Thr Asn 195 200 205

Gly Leu Gly His Gly Val Asp Leu Asn His Ile Tyr Gly Glu Thr Leu 210 215 220

- Ala Arg Gln Arg Lys Leu Arg Leu Phe Lys Asp Gly Lys Met Lys Tyr 225 230 235 240
- Gln Ile Ile Asp Gly Glu Met Tyr Pro Pro Thr Val Lys Asp Thr Gln 245 . 250 . 255
- Ala Glu Met Ile Tyr Pro Pro Gln Val Pro Glu His Leu Arg Phe Ala 260 265 270
- Val Gly Gln Glu Val Phe Gly Leu Val Pro Gly Leu Met Met Tyr Ala 275 280 285
- Thr Ile Trp Leu Arg Glu His Asn Arg Val Cys Asp Val Leu Lys Gln 290 295 300
- Glu His Pro Glu Trp Gly Asp Glu Gln Leu Phe Gln Thr Ser Arg Leu 305 310 315 320
- Ile Leu Ile Gly Glu Thr Ile Lys Ile Val Ile Glu Asp Tyr Val Gln 325 330 335
- His Leu Ser Gly Tyr His Phe Lys Leu Lys Phe Asp Pro Glu Leu Leu 340 345 350
- Phe Asn Lys Gln Phe Gln Tyr Gln Asn Arg Ile Ala Ala Glu Phe Asn 355 360 365
- Thr Leu Tyr His Trp His Pro Leu Leu Pro Asp Thr Phe Gln Ile His 370 375 380
- Asp Gln Lys Tyr Asn Tyr Gln Gln Phe Ile Tyr Asn Asn Ser Ile Leu 385 390 395 400
- Leu Glu His Gly Ile Thr Gln Phe Val Glu Ser Phe Thr Arg Gln Ile 405 410 415
- Ala Gly Arg Val Ala Gly Gly Arg Asn Val Pro Pro Ala Val Gln Lys
 420 425 430
- Val Ser Gln Ala Ser Ile Asp Gln Ser Arg Gln Met Lys Tyr Gln Ser 435 440 445

. F#

Phe Asn Glu Tyr Arg Lys Arg Phe Met Leu Lys Pro Tyr Glu Ser Phe 450 455 460

Glu Glu Leu Thr Gly Glu Lys Glu Met Ser Ala Glu Leu Glu Ala Leu 465 470 475 480

Tyr Gly Asp Ile Asp Ala Val Glu Leu Tyr Pro Ala Leu Leu Val Glu 485 490 495

Lys Pro Arg Pro Asp Ala Ile Phe Gly Glu Thr Met Val Glu Val Gly 500 505 510

Ala Pro Phe Ser Leu Lys Gly Leu Met Gly Asn Val Ile Cys Ser Pro 515 520 525

Ala Tyr Trp Lys Pro Ser Thr Phe Gly Gly Glu Val Gly Phe Gln Ile 530 535 540

Ile Asn Thr Ala Ser Ile Gln Ser Leu Ile Cys Asn Asn Val Lys Gly 545 550 555 560

Cys Pro Phe Thr Ser Phe Ser Val Pro Asp Pro Glu Leu Ile Lys Thr 565 570 575

Val Thr Ile Asn Ala Ser Ser Ser Arg Ser Gly Leu Asp Asp Ile Asn 580 585 590

Pro Thr Val Leu Leu Lys Glu Arg Ser Thr Glu Leu 595 600

<210> 2511

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2511

Met Pro Leu Cys Ser Leu Leu Thr Cys Leu Gly Leu Asn Val Leu Phe 1 5 10 15

Leu Thr Leu Asn Glu Gly Ala Trp Tyr Ser Val Gly Ala Leu Met Ile 20 25 30

Ser Val Pro Ala Leu Leu Gly Tyr Leu Gln Glu Val Cys Arg Ala Arg 35 40 45

Leu Pro Asp Ser Glu Leu Met Arg Arg Lys Tyr His Ser Val Arg Gln 50 55 60

Glu 65	Asp	Leu	Gln	Arg	Val 70	Arg	Leu	Ser	Arg	Pro 75	Glu	Ala	Val	Ala	Glu 80
Val	Lys	Ser	Phe	Leu 85	Ile	Gln	Leu	Glu	Ala 90	Phe	Leu	Ser	Arg	Leu 95	Cys
Cys	Thr	Cys	Glu 100	Ala	Ala	Tyr	Arg	Val 105	Leu	His	Trp	Glu	Asn 110	Pro	Val
Val	Ser	Ser 115	Gln	Phe	туг	Gly	Ala 120	Leu	Leu	Gly	Thr	Val 125	СЛв	Met	Leu
туr	Leu 130	Leu	Pro	Leu	Cys	Trp 135	Val	Leu	Thr	Leu	Leu 140	Asn	Ser	Thr	Leu
Phe 145	Leu	Gly	Asn	Val	Glu 150	Phe	Phe	Arg	Val	Val 155	Ser	Glu	Tyr	Arg	Ala 160
Ser	Leu	Gln	Gln	Arg 165	Met	Asn	Pro	Lys	Gln 170	Glu	Glu	His	Ala	Phe 175	Glu
Ser	Pro	Pro	Pro 180	Pro	Asp	Val	Gly	Gly 185	Lys	Asp	Gly	Leu	Met 190	Asp	Ser
Thr	Pro	Ala 195	Leu	Thr	Pro	Thr	Glu 200	Asp	Leu	Thr	Pro	Gly 205	Ser	Val	Glu
Glu	Ala 210	Glu	Glu	Ala	Glu	Pro 215	Asp	Glu	Glu	Phe	Lys 220	Asp	Ala	Ile	Glu
Glu 225		His	Leu	Val	Val 230	Leu	Glu	Asp	Asp	Glu 235		Ala	Pro	Cys	Pro 240
Ala	Glu	Asp	Glu	Leu 245		Leu	Gln	Asp	Asn 250		Phe	Leu	Ser	Lys 255	
Glu	Val	Leu	Arg 260		Lys	Val	Ser	Arg 265		Thr	Glu	Arg	Leu 270		Lys
Arg	Tyr	Pro 275		Asn	Asn	Phe	Gly 280		Cys	Thr	Gly	Cys 285	Ser	Ala	Thr
Phe	Ser		Leu	Lys	Lys	Arg		Ser	Cys	Ser	Asn 300		Gly	Asn	Ser

Phe Cys Ser Arg Cys Cys Ser Phe Lys Val Pro Lys Ser Ser Met Gly 305 310 315 320

Ala Thr Ala Pro Glu Ala Gln Arg Glu Thr Val Phe Val Cys Ala Ser 325 330 335

Cys Asn Gln Thr Leu Ser Lys 340

<210> 2512

<211> 789

<212> PRT

<213> Homo sapiens

<400> 2512

Met Lys Met Asp Met Glu Asp Ala Asp Met Thr Leu Trp Thr Glu Ala 1 5 10 15

Glu Phe Glu Glu Lys Cys Thr Tyr Ile Val Asn Asp His Pro Trp Asp 20 25 30

Ser Gly Ala Asp Gly Gly Thr Ser Val Gln Ala Glu Ala Ser Leu Pro

Arg Asn Leu Leu Phe Lys Tyr Ala Thr Asn Ser Glu Glu Val Ile Gly 50 55 60

Val Met Ser Lys Glu Tyr Ile Pro Lys Gly Thr Arg Phe Gly Pro Leu 65 70 75 80

Ile Gly Glu Ile Tyr Thr Asn Asp Thr Val Pro Lys Asn Ala Asn Arg 85 90 95

Lys Tyr Phe Trp Arg Ile Tyr Ser Arg Gly Glu Leu His His Phe Ile 100 105 110

Asp Gly Phe Asn Glu Glu Lys Ser Asn Trp Met Arg Tyr Val Asn Pro 115 120 125

Ala His Ser Pro Arg Glu Gln Asn Leu Ala Ala Cys Gln Asn Gly Met
130 135 140

Asn Ile Tyr Phe Tyr Thr Ile Lys Pro Ile Pro Ala Asn Gln Glu Leu 145 150 155 160

Leu Val Trp Tyr Cys Arg Asp Phe Ala Glu Arg Leu His Tyr Pro Tyr

165 170 175

Pro Gly Glu Leu Thr Met Met Asn Leu Thr Gln Thr Gln Ser Ser Leu 180 185 190

Lys Gln Pro Ser Thr Glu Lys Asn Glu Leu Cys Pro Lys Asn Val Pro
195 200 205

Lys Arg Glu Tyr Ser Val Lys Glu Ile Leu Lys Leu Asp Ser Asn Pro 210 215 220

Ser Lys Gly Lys Asp Leu Tyr Arg Ser Asn Ile Ser Pro Leu Thr Ser 230 235 240

Glu Lys Asp Leu Asp Asp Phe Arg Arg Gly Ser Pro Glu Met Pro 245 250 255

Phe Tyr Pro Arg Val Val Tyr Pro Ile Arg Ala Pro Leu Pro Glu Asp 260 265 270

Phe Leu Lys Ala Ser Leu Ala Tyr Gly Ile Glu Arg Pro Thr Tyr Ile 275 280 285

Thr Arg Ser Pro Ile Pro Ser Ser Thr Thr Pro Ser Pro Ser Ala Arg
290 295 300

Ser Ser Pro Asp Gln Ser Leu Lys Ser Ser Ser Pro His Ser Ser Pro 305 310 315 320

Gly Asn Thr Val Ser Pro Val Gly Pro Gly Ser Gln Glu His Arg Asp 325 330 335

Ser Tyr Ala Tyr Leu Asn Ala Ser Tyr Gly Thr Glu Gly Leu Gly Ser 340 345 350

Tyr Pro Gly Tyr Ala Pro Leu Pro His Leu Pro Pro Ala Phe Ile Pro 355 360 365

Ser Tyr Asn Ala His Tyr Pro Lys Phe Leu Leu Pro Pro Tyr Gly Met 370 380

Asn Cys Asn Gly Leu Ser Ala Val Ser Ser Met Asn Gly Ile Asn Asn 385 390 395 400

Phe Gly Leu Phe Pro Arg Leu Cys Pro Val Tyr Ser Asn Leu Leu Gly
405 410 415

.

Gly Gly Ser Leu Pro His Pro Met Leu Asn Pro Thr Ser Leu Pro Ser 420 425 430

- Ser Leu Pro Ser Asp Gly Ala Arg Arg Leu Leu Gln Pro Glu His Pro 435 440 445
- Arg Glu Val Leu Val Pro Ala Pro His Ser Ala Phe Ser Phe Thr Gly 450 455 460
- Ala Ala Ser Met Lys Asp Lys Ala Cys Ser Pro Thr Ser Gly Ser 465 470 475 480
- Pro Thr Ala Gly Thr Ala Ala Thr Ala Glu His Val Val Gln Pro Lys 485 490 495
- Ala Thr Ser Ala Ala Met Ala Ala Pro Ser Ser Asp Glu Ala Met Asn 500 505 510
- Leu Ile Lys Asn Lys Arg Asn Met Thr Gly Tyr Lys Thr Leu Pro Tyr 515 520 525
- Pro Leu Lys Lys Gln Asn Gly Lys Ile Lys Tyr Glu Cys Asn Val Cys 530 535 540
- Ala Lys Thr Phe Gly Gln Leu Ser Asn Leu Lys Val His Leu Arg Val 545 550 555 560
- His Ser Gly Glu Arg Pro Phe Lys Cys Gln Thr Cys Asn Lys Gly Phe
 565 570 575
- Thr Gln Leu Ala His Leu Gln Lys His Tyr Leu Val His Thr Gly Glu
 580 585 590
- Lys Pro His Glu Cys Gln Val Cys His Lys Arg Phe Ser Ser Thr Ser 595 600 605
- Asn Leu Lys Thr His Leu Arg Leu His Ser Gly Glu Lys Pro Tyr Gln 610 620
- Cys Lys Val Cys Pro Ala Lys Phe Thr Gln Phe Val His Leu Lys Leu 625 630 635 640
- His Lys Arg Leu His Thr Arg Glu Arg Pro His Lys Cys Ser Gln Cys 645 650 655

His Lys Asn Tyr Ile His Leu Cys Ser Leu Lys Val His Leu Lys Gly 660 665 670

- Asn Cys Ala Ala Ala Pro Ala Pro Gly Leu Pro Leu Glu Asp Leu Thr 675 680 685
- Arg Ile Asn Glu Glu Ile Glu Lys Phe Asp Ile Ser Asp Asn Ala Asp 690 695 700
- Arg Leu Glu Asp Val Glu Asp Asp Ile Ser Val Ile Ser Val Val Glu
 705 710 715 720
- Lys Glu Ile Leu Ala Val Val Arg Lys Glu Lys Glu Glu Thr Gly Leu 725 730 735
- Lys Val Ser Leu Gln Arg Asn Met Gly Asn Gly Leu Leu Ser Ser Gly 740 745 750
- Cys Ser Leu Tyr Glu Ser Ser Asp Leu Pro Leu Met Lys Leu Pro Pro 755 760 765
- Ser Asn Pro Leu Pro Leu Val Pro Val Lys Val Lys Gln Glu Thr Val 770 775 780

Glu Pro Met Asp Pro 785

<210> 2513

<211> 381

<212> PRT

<213> Homo sapiens

<400> 2513

- Met Pro Phe Ser Asn Ser His Asn Ala Leu Lys Leu Arg Phe Pro Ala 1 5 10 15
- Glu Asp Glu Phe Pro Asp Leu Ser Ala His Asn Asn His Met Ala Lys
 20 25 30
- Val Leu Thr Pro Glu Leu Tyr Ala Glu Leu Arg Ala Lys Ser Thr Pro 35 40 45
- Ser Gly Phe Thr Leu Asp Asp Val Ile Gln Thr Gly Val Asp Asn Pro 50 55 60
- Gly His Pro Tyr Ile Met Thr Val Gly Cys Val Ala Gly Asp Glu Glu

- 48

65 70 75 80

Ser Tyr Glu Val Phe Lys Asp Leu Phe Asp Pro Ile Ile Glu Asp Arg 85 90 95

His Gly Gly Tyr Lys Pro Ser Asp Glu His Lys Thr Asp Leu Asn Pro 100 105 110

Asp Asn Leu Gln Gly Gly Asp Asp Leu Asp Pro Asn Tyr Val Leu Ser 115 120 125

Ser Arg Val Arg Thr Gly Arg Ser Ile Arg Gly Phe Cys Leu Pro Pro 130 135 140 ·

His Cys Ser Arg Gly Glu Arg Arg Ala Ile Glu Lys Leu Ala Val Glu 145 150 155 160

Ala Leu Ser Ser Leu Asp Gly Asp Leu Ala Gly Arg Tyr Tyr Ala Leu 165 170 175

Lys Ser Met Thr Glu Ala Glu Gln Gln Leu Ile Asp Asp His Phe 180 185 190

Leu Phe Asp Lys Pro Val Ser Pro Leu Leu Leu Ala Ser Gly Met Ala 195 200 205

Arg Asp Trp Pro Asp Ala Arg Gly Ile Trp His Asn Asp Asn Lys Thr 210 215 220

Phe Leu Val Trp Val Asn Glu Glu Asp His Leu Arg Val Ile Ser Met 225 230 235 240

Gln Lys Gly Gly Asn Met Lys Glu Val Phe Thr Arg Phe Cys Thr Gly
245 250 255

Leu Thr Gln Ile Glu Thr Leu Phe Lys Ser Lys Asp Tyr Glu Phe Met 260 265 270

Trp Asn Pro His Leu Gly Tyr Ile Leu Thr Cys Pro Ser Asn Leu Gly 275 280 285

Thr Gly Leu Arg Ala Gly Val His Ile Lys Leu Pro Asn Leu Gly Lys 290 295 300

His Glu Lys Phe Ser Glu Val Leu Lys Arg Leu Arg Leu Gln Lys Arg 305 310 315 320

1

Gly Thr Gly Gly Val Asp Thr Ala Ala Val Gly Gly Val Phe Asp Val 325 330 335

Ser Asn Ala Asp Arg Leu Gly Phe Ser Glu Val Glu Leu Val Gln Met 340 345 350

Val Val Asp Gly Val Lys Leu Leu Ile Glu Met Glu Gln Arg Leu Glu 355 360 365

Gln Gly Gln Ala Ile Asp Asp Leu Met Pro Ala Gln Lys 370 375 380

<210> 2514

<211> 541

<212> PRT

<213> Homo sapiens

<400> 2514

Met Thr Thr Pro Ala Gly Ser Gly Ser Gly Phe Gly Ser Val Ser Trp 5 10 15

Trp Gly Leu Ser Pro Ala Leu Asp Leu Gln Ala Glu Ser Pro Pro Val 20 25 30

Asp Pro Asp Ser Gln Ala Asp Thr Val His Ser Asn Pro Glu Leu Asp 35 40 45

Val Leu Leu Gly Ser Val Asp Gly Arg His Leu Leu Arg Thr Leu 50 55 60

Ser Arg Ala Lys Phe Trp Pro Arg Arg Arg Phe Asn Phe Phe Val Leu 70 75 80

Glu Asn Asn Leu Glu Ala Val Ala Arg His Met Leu Ile Phe Ser Leu 85 90 95

Ala Leu Glu Glu Pro Glu Lys Met Gly Leu Gln Glu Arg Ser Glu Thr

Phe Leu Glu Val Trp Gly Asn Ala Leu Leu Arg Pro Pro Val Ala Ala 115 120 125

Phe Val Arg Ala Gln Ala Asp Leu Leu Ala His Leu Val Pro Glu Pro 130 135 140

Asp Arg Leu Glu Glu Gln Leu Pro Trp Leu Ser Leu Arg Ala Leu Lys 145 150 155 160

- Phe Arg Glu Arg Asp Ala Leu Glu Ala Val Phe Arg Phe Trp Ala Gly
 165 170 175
- Gly Glu Lys Gly Pro Gln Ala Phe Pro Met Ser Arg Leu Trp Asp Ser 180 185 190
- Arg Leu Arg His Tyr Leu Gly Ser Arg Tyr Asp Ala Arg Arg Gly Val 195 200 205
- Ser Asp Trp Asp Leu Arg Met Lys Leu His Asp Arg Gly Ala Gln Val 210 215 220
- Ile His Pro Gln Glu Phe Arg Arg Trp Arg Asp Thr Gly Val Ala Phe 225 230 235 240
- Glu Leu Arg Asp Ser Ser Ala Tyr His Val Pro Asn Arg Thr Leu Ala 245 250 255
- Ser Gly Arg Leu Leu Ser Tyr Arg Gly Glu Arg Val Ala Ala Arg Gly 260 265 270
- Tyr Trp Gly Asp Ile Ala Thr Gly Pro Phe Val Ala Phe Gly Ile Glu 275 280 285
- Ala Asp Asp Glu Ser Leu Leu Arg Thr Ser Asn Gly Gln Pro Val Lys 290 295 300
- Thr Ala Gly Glu Ile Thr Gln His Asn Val Thr Glu Leu Leu Arg Asp 305 310 315 320
- Val Ala Ala Trp Gly Arg Ala Arg Ala Thr Gly Gly Asp Leu Glu Glu 325 330 335
- Gln Gln His Ala Glu Gly Ser Pro Glu Pro Gly Thr Pro Ala Ala Pro 340 345 350
- Thr Pro Glu Ser Phe Thr Val His Phe Leu Pro Leu Asn Ser Ala Gln 355 360 365
- Thr Leu His His Lys Ser Cys Tyr Asn Gly Arg Phe Gln Leu Leu Tyr 370 375 380
- Val Ala Cys Gly Met Val His Leu Leu Ile Pro Glu Leu Gly Ala Cys

385 390 395 400

Val Ala Pro Gly Gly Asn Leu Ile Val Glu Leu Ala Arg Tyr Leu Val 405 410 415

Asp Val Arg Gln Glu Gln Leu Gln Gly Phe Asn Thr Arg Val Arg Glu
420 425 430

Leu Ala Gln Ala Ala Gly Phe Ala Pro Gln Thr Gly Ala Arg Pro Ser 435 440 445

Glu Thr Phe Ala Arg Phe Cys Lys Ser Gln Glu Ser Ala Leu Gly Asn 450 455 460

Thr Val Pro Ala Val Glu Pro Gly Thr Pro Pro Leu Asp Ile Leu Ala 465 470 475 480

Gln Pro Leu Glu Ala Ser Asn Pro Ala Leu Glu Gly Leu Thr Gln Pro 485 490 495

Leu Gln Gly Gly Thr Pro His Cys Glu Pro Cys Gln Leu Pro Ser Glu
500 505 510

Ser Pro Gly Ser Leu Ser Glu Val Leu Ala Gln Pro Gln Gly Ala Leu 515 520 525

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Ala Pro Pro Asn Cys Glu Ser Asp Ser Lys Thr Gly Val 530 535 540

<210> 2515

<211> 288

<212> PRT

<213> Homo sapiens

<400> 2515

Met Ser Asp Ile Glu Glu Val Val Glu Glu Tyr Glu Glu Glu Glu Gln 1 5 10 15

Glu Glu Ala Ala Val Glu Glu Glu Glu Ala Ala Glu Glu Asp Ala 20 25 30

Glu Ala Glu Ala Glu Thr Glu Glu Thr Arg Ala Glu Glu Asp Glu Glu
35 40 45

Glu Glu Glu Ala Lys Glu Ala Glu Asp Gly Pro Met Glu Glu Ser Lys 50 55 60

Pro Lys Pro Arg Ser Phe Met Pro Asn Leu Val Pro Pro Lys Ile Pro 65 70 75 80

- Asp Gly Glu Arg Val Asp Phe Asp Asp Ile His Arg Lys Arg Met Glu 85 90 95
- Lys Asp Leu Asn Glu Leu Gln Ala Leu Ile Glu Ala His Phe Glu Asn 100 105 110
- Arg Lys Lys Glu Glu Glu Glu Leu Val Ser Leu Lys Asp Arg Ile Glu
 115 120 125
- Arg Arg Ala Glu Arg Ala Glu Gln Gln Arg Ile Arg Asn Glu Arg 130 135 140
- Glu Lys Glu Arg Gln Asn Arg Leu Ala Glu Glu Arg Ala Arg Arg Glu 145 150 155 160
- Glu Glu Glu Asn Arg Arg Lys Ala Glu Asp Glu Ala Arg Lys Lys 165 170 175
- Ala Leu Ser Asn Met Met His Phe Gly Gly Tyr Ile Gln Lys Gln Ala 180 185 190
- Gln Thr Glu Arg Lys Ser Gly Lys Arg Gln Thr Glu Arg Glu Lys Lys
- Lys Lys Ile Leu Ala Glu Arg Arg Lys Val Leu Ala Ile Asp His Leu 210 215 220
- Asn Glu Asp Gln Leu Arg Glu Lys Ala Lys Glu Leu Trp Gln Ser Ile 225 230 235 240
- Tyr Asn Leu Glu Ala Glu Lys Phe Asp Leu Gln Glu Lys Phe Lys Gln 245 250 255
- Gln Lys Tyr Glu Ile Asn Val Leu Arg Asn Arg Ile Asn Asp Asn Gln 260 265 270
- Lys Val Ser Lys Thr Arg Gly Lys Ala Lys Val Thr Gly Arg Trp Lys 275 280 285
- <210> 2516
- <211> 154
- <212> PRT
- <213> Homo sapiens

<400> 2516

Met Gly Leu Ser Asp Gly Glu Trp Gln Leu Val Leu Asn Val Trp Gly
1 10 15

Lys Val Glu Ala Asp Ile Pro Gly His Gly Gln Glu Val Leu Ile Arg
20 25 30

Leu Phe Lys Gly His Pro Glu Thr Leu Glu Lys Phe Asp Lys Phe Lys 35 40 45

His Leu Lys Ser Glu Asp Glu Met Lys Ala Ser Glu Asp Leu Lys Lys 50 55 60

His Gly Ala Thr Val Leu Thr Ala Leu Gly Gly Ile Leu Lys Lys Lys 65 70 75 80

Gly His His Glu Ala Glu Ile Lys Pro Leu Ala Gln Ser His Ala Thr 85 90 95

Lys His Lys Ile Pro Val Lys Tyr Leu Glu Phe Ile Ser Glu Cys Ile 100 105 110

Ile Gln Val Leu Gln Ser Lys His Pro Gly Asp Phe Gly Ala Asp Ala
115 120 125

Gln Gly Ala Met Asn Lys Ala Leu Glu Leu Phe Arg Lys Asp Met Ala 130 135 140

Ser Asn Tyr Lys Glu Leu Gly Phe Gln Gly

<210> 2517

<211> 501

<212> PRT

<213> Homo sapiens

<400> 2517

Met Val Arg Lys Pro Val Val Ser Thr Ile Ser Lys Gly Gly Tyr Leu 5 10 15

Gln Gly Asn Val Asn Gly Arg Leu Pro Ser Leu Gly Asn Lys Glu Pro
20 25 30

Pro Gly Gln Glu Lys Val Gln Leu Lys Arg Lys Val Thr Leu Leu Arg 35 40 45

Gly Val Ser Ile Ile Ile Gly Thr Ile Ile Gly Ala Gly Ile Phe Ile 50 55 60

- Ser Pro Lys Gly Val Leu Gln Asn Thr Gly Ser Val Gly Met Ser Leu 65 70 75 80
- Thr Ile Trp Thr Val Cys Gly Val Leu Ser Leu Phe Gly Ala Leu Ser 85 90 95
- Tyr Ala Glu Leu Gly Thr Thr Ile Lys Lys Ser Gly Gly His Tyr Thr 100 105 110
- Tyr Ile Leu Glu Val Phe Gly Pro Leu Pro Ala Phe Val Arg Val Trp
- Val Glu Leu Leu Ile Ile Arg Pro Ala Ala Thr Ala Val Ile Ser Leu 130 135 140
- Ala Phe Gly Arg Tyr Ile Leu Glu Pro Phe Phe Ile Gln Cys Glu Ile 145 150 155 160
- Pro Glu Leu Ala Ile Lys Leu Ile Thr Ala Val Gly Ile Thr Val Val 165 170 175
- Met Val Leu Asn Ser Met Ser Val Ser Trp Ser Ala Arg Ile Gln Ile
- Phe Leu Thr Phe Cys Lys Leu Thr Ala Ile Leu Ile Ile Val Pro 195 200 205
- Gly Val Met Gln Leu Ile Lys Gly Gln Thr Gln Asn Phe Lys Asp Ala 210 215 220
- Phe Ser Gly Arg Asp Ser Ser Ile Thr Arg Leu Pro Leu Ala Phe Tyr 225 230 235 240
- Tyr Gly Met Tyr Ala Tyr Ala Gly Trp Phe Tyr Leu Asn Phe Val Thr 245 250 255
- Glu Glu Val Glu Asn Pro Glu Lys Thr Ile Pro Leu Ala Ile Cys Ile 260 265 270
- Ser Met Ala Ile Val Thr Ile Gly Tyr Val Leu Thr Asn Val Ala Tyr 275 280 285

Phe Thr Thr Ile Asn Ala Glu Glu Leu Leu Leu Ser Asn Ala Val Ala 290 295 300

Val Thr Phe Ser Glu Arg Leu Leu Gly Asn Phe Ser Leu Ala Val Pro 305 310 315 320

Ile Phe Val Ala Leu Ser Cys Phe Gly Ser Met Asn Gly Gly Val Phe 325 330 335

Ala Val Ser Arg Leu Phe Tyr Val Ala Ser Arg Glu Gly His Leu Pro 340 345 350

Glu Ile Leu Ser Met Ile His Val Arg Lys His Thr Pro Leu Pro Ala 355 360 365

Val Ile Val Leu His Pro Leu Thr Met Ile Met Leu Phe Ser Gly Asp 370 375 380

Leu Asp Ser Leu Leu Asn Phe Leu Ser Phe Ala Arg Trp Leu Phe Ile 385 390 395 400

Gly Leu Ala Val Ala Gly Leu Ile Tyr Leu Arg Tyr Lys Cys Pro Asp 405 410 415

Met His Arg Pro Phe Lys Val Pro Leu Phe Ile Pro Ala Leu Phe Ser 420 425 430

Phe Thr Cys Leu Phe Met Val Ala Leu Ser Leu Tyr Ser Asp Pro Phe 435 440 445

Ser Thr Gly Ile Gly Phe Val Ile Thr Leu Thr Gly Val Pro Ala Tyr 450 455 460

Tyr Leu Phe Ile Ile Trp Asp Lys Lys Pro Arg Trp Phe Arg Ile Met 465 470 475 480

Ser Glu Lys Ile Thr Arg Thr Leu Gln Ile Ile Leu Glu Val Val Pro 485 490 495

Glu Glu Asp Lys Leu 500

<210> 2518

<211> 277

<212> PRT

<213> Homo sapiens

<400> 2518

Met Val Arg Leu Pro Leu Gln Cys Val Leu Trp Gly Cys Leu Leu Thr 1 5 10 15

Ala Val His Pro Glu Pro Pro Thr Ala Cys Arg Glu Lys Gln Tyr Leu 20 25 30

Ile Asn Ser Gln Cys Cys Ser Leu Cys Gln Pro Gly Gln Lys Leu Val 35 40 45

Ser Asp Cys Thr Glu Phe Thr Glu Thr Glu Cys Leu Pro Cys Gly Glu 50 55 60

Ser Glu Phe Leu Asp Thr Trp Asn Arg Glu Thr His Cys His Gln His 65 70 75 80

Lys Tyr Cys Asp Pro Asn Leu Gly Leu Arg Val Gln Gln Lys Gly Thr 85 90 95

Ser Glu Thr Asp Thr Ile Cys Thr Cys Glu Glu Gly Trp His Cys Thr 100 105 110

Ser Glu Ala Cys Glu Ser Cys Val Leu His Arg Ser Cys Ser Pro Gly 115 120 125

Phe Gly Val Lys Gln Ile Ala Thr Gly Val Ser Asp Thr Ile Cys Glu 130 135 140

Pro Cys Pro Val Gly Phe Phe Ser Asn Val Ser Ser Ala Phe Glu Lys 145 150 155 160

Cys His Pro Trp Thr Ser Cys Glu Thr Lys Asp Leu Val Val Gln Gln 165 170 175

Ala Gly Thr Asn Lys Thr Asp Val Val Cys Gly Pro Gln Asp Arg Leu 180 185 190

Arg Ala Leu Val Val Ile Pro Ile Ile Phe Gly Ile Leu Phe Ala Ile
195 200 205

Leu Leu Val Leu Val Phe Ile Lys Lys Val Ala Lys Lys Pro Thr Asn 210 215 220

Lys Ala Pro His Pro Lys Gln Glu Pro Gln Glu Ile Asn Phe Pro Asp 225 230 235 240 Asp Leu Pro Gly Ser Asn Thr Ala Ala Pro Val Gln Glu Thr Leu His 245 250 255

Gly Cys Gln Pro Val Thr Gln Glu Asp Gly Lys Glu Ser Arg Ile Ser 260 265 270

Val Gln Glu Arg Gln 275

<210> 2519

<211> 260

7

<212> PRT

<213> Homo sapiens

<400> 2519

Met Ala Arg Pro His Pro Trp Trp Leu Cys Val Leu Gly Thr Leu Val 1 5 10 15

Gly Leu Ser Ala Thr Pro Ala Pro Lys Ser Cys Pro Glu Arg His Tyr 20 25 30

Trp Ala Gln Gly Lys Leu Cys Cys Gln Met Cys Glu Pro Gly Thr Phe 35 40 45

Leu Val Lys Asp Cys Asp Gln His Arg Lys Ala Ala Gln Cys Asp Pro 50 55 60

Cys Ile Pro Gly Val Ser Phe Ser Pro Asp His His Thr Arg Pro His 65 70 75 80

Cys Glu Ser Cys Arg His Cys Asn Ser Gly Leu Leu Val Arg Asn Cys . 85 90 95

Thr Ile Thr Ala Asn Ala Glu Cys Ala Cys Arg Asn Gly Trp Gln Cys 100 105 110

Arg Asp Lys Glu Cys Thr Glu Cys Asp Pro Leu Pro Asn Pro Ser Leu 115 120 125

Thr Ala Arg Ser Ser Gln Ala Leu Ser Pro His Pro Gln Pro Thr His 130 135 140

Leu Pro Tyr Val Ser Glu Met Leu Glu Ala Arg Thr Ala Gly His Met 145 150 155 160

Gln Thr Leu Ala Asp Phe Arg Gln Leu Pro Ala Arg Thr Leu Ser Thr

165

170

175

His Trp Pro Pro Gln Arg Ser Leu Cys Ser Ser Asp Phe Ile Arg Ile 180 185 190

Leu Val Ile Phe Ser Gly Met Phe Leu Val Phe Thr Leu Ala Gly Ala
195 200 205

Leu Phe Leu His Gln Arg Arg Lys Tyr Arg Ser Asn Lys Gly Glu Ser 210 215 220

Pro Val Glu Pro Ala Glu Pro Cys Arg Tyr Ser Cys Pro Arg Glu Glu 225 230 235 240

Glu Gly Ser Thr Ile Pro Ile Gln Glu Asp Tyr Arg Lys Pro Glu Pro 245 250 255

Ala Cys Ser Pro 260

<210> 2520

<211> 329

<212> PRT

<213> Homo sapiens

<400> 2520

Met Asp Pro Gln Cys Thr Met Gly Leu Ser Asn Ile Leu Phe Val Met 1 5 10 15

Ala Phe Leu Leu Ser Gly Ala Ala Pro Leu Lys Ile Gln Ala Tyr Phe 20 25 30

Asn Glu Thr Ala Asp Leu Pro Cys Gln Phe Ala Asn Ser Gln Asn Gln 35 40 45

Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Glu Asn Leu Val 50 55 60

Leu Asn Glu Val Tyr Leu Gly Lys Glu Lys Phe Asp Ser Val His Ser 65 70 75 80

Lys Tyr Met Gly Arg Thr Ser Phe Asp Ser Asp Ser Trp Thr Leu Arg 85 90 95

Leu His Asn Leu Gln Ile Lys Asp Lys Gly Leu Tyr Gln Cys Ile Ile 100 105 110

His His Lys Lys Pro Thr Gly Met Ile Arg Ile His Gln Met Asn Ser 115 120 125

Glu Leu Ser Val Leu Ala Asn Phe Ser Gln Pro Glu Ile Val Pro Ile 130 135 140

Ser Asn Ile Thr Glu Asn Val Tyr Ile Asn Leu Thr Cys Ser Ser Ile 145 150 155 160

His Gly Tyr Pro Glu Pro Lys Lys Met Ser Val Leu Leu Arg Thr Lys 165 170 175

Asn Ser Thr Ile Glu Tyr Asp Gly Ile Met Gln Lys Ser Gln Asp Asn 180 185 190

Val Thr Glu Leu Tyr Asp Val Ser Ile Ser Leu Ser Val Ser Phe Pro 195 200 205

Asp Val Thr Ser Asn Met Thr Ile Phe Cys Ile Leu Glu Thr Asp Lys 210 215 220

Thr Arg Leu Leu Ser Ser Pro Phe Ser Ile Glu Leu Glu Asp Pro Gln 225 230 235 240

Pro Pro Pro Asp His Ile Pro Trp Ile Thr Ala Val Leu Pro Thr Val 245 250 255

Ile Ile Cys Val Met Val Phe Cys Leu Ile Leu Trp Lys Trp Lys Lys 260 265 270

Lys Lys Arg Pro Arg Asn Ser Tyr Lys Cys Gly Thr Asn Thr Met Glu 275 280 285

Arg Glu Glu Ser Glu Gln Thr Lys Lys Arg Glu Lys Ile His Ile Pro 290 295 300

Glu Arg Ser Asp Glu Ala Gln Arg Val Phe Lys Ser Ser Lys Thr Ser 305 310 315 320

Ser Cys Asp Lys Ser Asp Thr Cys Phe 325

<210> 2521

<211> 132

<212> PRT

<213> Homo sapiens

<400> 2521

Met Glu Phe Asp Leu Asn Gly Asn Gly Asp Ile Gly Glu Lys Arg Val 1 5 10 15

Ile Cys Gly Gly Arg Val Val Cys Arg Pro Lys Lys Thr Glu Val Ser

Pro Thr Cys Ser Ile Pro His Asp Leu Gly Gly Gly Pro Pro Thr Thr 35 40 45

Val Gly Gly Arg Arg Met Gly Met Arg Lys Trp Glu Arg Arg Glu Arg 50 55 60

Val Ser Pro Pro Ser Pro His Pro His Pro Leu Pro Pro Asp Ile Met 65 70 75 80

Ser Leu Lys Arg Met Leu Glu Lys Leu Gly Val Pro Lys Thr His Leu 85 90 95

Glu Leu Lys Lys Leu Ile Gly Glu Val Ser Ser Gly Ser Gly Glu Thr

Phe Ser Tyr Pro Asp Phe Leu Arg Met Met Leu Gly Lys Arg Ser Ala 115 120 125

Ile Leu Lys Met 130

<210> 2522

<211> 491

<212> PRT

<213> Homo sapiens

<400> 2522

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu

5 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala
20 25 30

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu 35 40 45

Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys 50 55 60

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp 65 70 75 80

- Val Leu Ala Glu Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val 85 90 95
- Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu 100 105 110
- Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn 115 120 125
- Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Glu Met Lys
 130 135 140
- Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro 145 150 155 160
- Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp 165 170 175
- Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys 180 185 190
- Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys
 195 200 205
- Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr 210 215 220
- Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln 225 230 235 240
- Cys Ser Pro Asp Glu Ile Met Ala Tyr Ala Gln Lys Ile Phe Lys Ile 245 250 255
- Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe
 260 265 270
- Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys 275 280 285
- Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu 290 295 300

Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr 305 310 315 320

Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile 325 330 335

Ser Val Met Lys Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala 340 345 350

Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val 355 360 365

Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile 370 375 380

Val Ala Tyr Thr Leu Ala Thr Ala Gly Val Ser Ser Ser Asp Ser Leu 385 390 395 400

Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser 405 410 415

Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp 420 425 430

Glu Glu Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser
435 440 445

Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Pro Glu Glu 450 455 460

Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr 465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln
485 490

<210> 2523

<211> 491

<212> PRT

<213> Homo sapiens

<400> 2523

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu

1 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala 20 25 30

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu 35 40 45

- Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys 50 55 60
- Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp 65 70 75 80
- Val Leu Ala Glu Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val 85 90 95
- Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu 100 105 110
- Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn 115 120 125
- Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Glu Met Lys
 130 140
- Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro 145 150 155 160
- Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp 165 170 175
- Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys 180 185 190
- Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys 195 200 205
- Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr 210 215 220
- Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln 225 230 235 240
- Cys Ser Pro Asp Glu Ile Met Ala Tyr Ala Gln Lys Ile Phe Lys Ile 245 250 255
- Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe 260 265 270

Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys 275 280 285

Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu 290 295 300

Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr 305 310 315 320

Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile 325 330 335

Ser Val Met Lys Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala 340 345 350

Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val 355 360 365

Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile 370 375 380

Val Ala Tyr Thr Leu Ala Thr Ala Gly Val Ser Ser Ser Asp Ser Leu 385 390 395 400

Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser 405 410 415

Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp 420 425 430

Glu Glu Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser 435 440 445

Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Pro Glu Glu
450 455 460

Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr 465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln 485 490

<210> 2524

<211> 641

<212> PRT

<213> Homo sapiens

<400> 2524

Met Ser Asp Glu Gly Pro Gly Thr Gly Pro Gly Asn Gly Leu Gly Glu
1 5 10 15

Lys Gly Asp Thr Ser Gly Pro Glu Gly Ser Gly Gly Ser Gly Pro Gln 20 25 30

Arg Arg Gly Gly Asp Asn His Gly Arg Gly Arg Gly Arg Gly 35 40 45

Arg Gly Gly Arg Pro Gly Ala Pro Gly Gly Ser Gly Pro 50 55 60

Arg His Arg Asp Gly Val Arg Arg Pro Gln Lys Arg Pro Ser Cys Ile 65 70 75 80

Gly Cys Lys Gly Thr His Gly Gly Thr Gly Ala Gly Ala Gly Ala Gly 85 90 95

Gly Ala Gly Ala Gly Ala Gly Ala Gly Gly Ala Gly Ala Gly 100 105 110

Gly Gly Ala Gly Gly Ala Gly Gly Ala Gly Ala Gly Gly 115 120 125

Gly Ala Gly Ala Gly Gly Ala Gly Gly Ala Gly Ala Gly Ala 130 135 140

Gly Gly Gly Ala Gly Ala Gly Gly Ala Gly Gly Ala Gly Ala Gly 145 150 155 160

Gly Gly Ala Gly Gly Ala Gly Ala Gly Gly Gly Ala Gly 165 170 175

Ala Gly Gly Gly Ala Gly Ala Gly Ala Gly Gly Gly Gly Gly 180 185 190

Ala Gly Gly Ala Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly 195 200 205

Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly Ala Gly Gly Ala` 210 215 220

Gly Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala 225 230 235 240

Gly Ala Gly Gly Ala Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly 245 250 255

- Gly Ala Gly Gly Ala Gly Gly Ala Gly Gly Ala Gly Ala Gly 260 265 270
- Gly Gly Ala Gly Gly Ala Gly Gly Gly Ala Gly Gly Ala Gly 275 280 285
- Ala Gly Gly Ala Gly Gly Ala Gly Gly Ala Gly Gly Ala Gly 290 295 300
- Ala Gly Gly Ala Gly Gly Ala Gly Ala Gly Gly Gly Ala Gly Ala Gly 305 310 315 320
- Gly Ala Gly Ala Gly Gly Gly Gly Arg Gly Arg Gly Gly Ser Gly Gly 325 330 335
- Arg Gly Arg Gly Gly Ser Gly Gly Arg Gly Arg Gly Gly Ser Gly Gly 340 345 350
- Arg Arg Gly Arg Gly Arg Glu Arg Ala Arg Gly Gly Ser Arg Glu Arg 355 360 365
- Ala Arg Gly Arg Gly Arg Gly Glu Lys Arg Pro Arg Ser Pro 370 375 380
- Ser Ser Gln Ser Ser Ser Gly Ser Pro Pro Arg Arg Pro Pro 385 390 395 400
- Gly Arg Arg Pro Phe Phe His Pro Val Gly Glu Ala Asp Tyr Phe Glu 405 410 415
- Tyr His Gln Glu Gly Gly Pro Asp Gly Glu Pro Asp Val Pro Pro Gly 420 425 430
- Ala Ile Glu Gln Gly Pro Ala Asp Asp Pro Gly Glu Gly Pro Ser Thr 435 440 445
- Gly Pro Arg Gly Gln Gly Asp Gly Gly Arg Arg Lys Lys Gly Gly Trp 450 455 460
- Phe Gly Lys His Arg Gly Gln Gly Gly Ser Asn Pro Lys Phe Glu Asn 465 470 475 480

Ile Ala Glu Gly Leu Arg Ala Leu Leu Ala Arg Ser His Val Glu Arg
485 490 495

Thr Thr Asp Glu Gly Thr Trp Val Ala Gly Val Phe Val Tyr Gly Gly 500 505 510

Ser Lys Thr Ser Leu Tyr Asn Leu Arg Arg Gly Thr Ala Leu Ala Ile 515 520 525

Pro Gln Cys Arg Leu Thr Pro Leu Ser Arg Leu Pro Phe Gly Met Ala 530 535 540

Pro Gly Pro Gly Pro Gln Pro Gly Pro Leu Arg Glu Ser Ile Val Cys 545 550 555 560

Tyr Phe Met Val Phe Leu Gln Thr His Ile Phe Ala Glu Val Leu Lys 565 570 575

Asp Ala Ile Lys Asp Leu Val Met Thr Lys Pro Ala Pro Thr Cys Asn 580 585 590

Ile Arg Val Thr Val Cys Ser Phe Asp Asp Gly Val Asp Leu Pro Pro 595 600 605

Trp Phe Pro Pro Met Val Glu Gly Ala Ala Glu Gly Asp Asp Gly 610 615 620

Asp Asp Gly Asp Glu Gly Gly Asp Glu Glu Glu Glu Gln 625 630 635 640

Glu

<210> 2525

<211> 245

<212> PRT

<213> Homo sapiens

<400> 2525

Met Met Asp Pro Asn Ser Thr Ser Glu Asp Val Lys Phe Thr Pro Asp 1 5 10 15

Pro Tyr Gln Val Pro Phe Val Gln Ala Phe Asp Gln Ala Thr Arg Val

Tyr Gln Asp Leu Gly Gly Pro Ser Gln Ala Pro Leu Pro Cys Val Leu

35 40 45

Trp Pro Val Leu Pro Glu Pro Leu Pro Gln Gly Gln Leu Thr Ala Tyr 50 55 60

His Val Ser Thr Ala Pro Thr Gly Ser Trp Phe Ser Ala Pro Gln Pro 65 70 75 80

Ala Pro Glu Asn Ala Tyr Gln Ala Tyr Ala Ala Pro Gln Leu Phe Pro 85 90 95

Val Ser Asp Ile Thr Gln Asn Gln Gln Thr Asn Gln Ala Gly Glu 100 105 110

Ala Pro Gln Pro Gly Asp Asn Ser Thr Val Gln Thr Ala Ala Val 115 120 125

Val Phe Ala Cys Pro Gly Ala Asn Gln Gly Gln Gln Leu Ala Asp Ile 130 135 140

Gly Val Pro Gln Pro Ala Pro Val Ala Ala Pro Ala Arg Arg Thr Arg 145 150 155 160

Lys Pro Gln Gln Pro Glu Ser Leu Glu Glu Cys Asp Ser Glu Leu Glu 165 170 175

Ile Lys Arg Tyr Lys Asn Arg Val Ala Ser Arg Lys Cys Arg Ala Lys 180 185 190

Phe Lys Gln Leu Leu Gln His Tyr Arg Glu Val Ala Ala Ala Lys Ser 195 200 205

Ser Glu Asn Asp Arg Leu Arg Leu Leu Leu Lys Gln Met Cys Pro Ser 210 215 220

Leu Asp Val Asp Ser Ile Ile Pro Arg Thr Pro Asp Val Leu His Glu 225 230 235 240

Asp Leu Leu Asn Phe 245

<210> 2526

<211> 491

<212> PRT

<213> Homo sapiens

<400> 2526

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala 30

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu Ass Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys 55

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp 65

Val Leu Ala Glu Leu Val Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu

Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu 100 105 110

Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn 115 120 125

Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Glu Met Lys 130 135 140

Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro 145 150 155 160

Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp 165 170 175

Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys 180 185 190

Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys 195 200 205

Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr 210 215 220

Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln 225 230 235 240

891

Cys Ser Pro Asp Glu Ile Met Ala Tyr Ala Gln Lys Ile Phe Lys Ile 245 250 255

- Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe 260 265 270
- Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys 275 280 285
- Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu 290 295 300
- Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr 305 310 315 320
- Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile 325 330 335
- Ser Val Met Lys Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala 340 345 350
- Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val 355 360 365
- Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile 370 375 380
- Val Ala Tyr Thr Leu Ala Thr Ala Gly Val Ser Ser Ser Asp Ser Leu 385 390 395 400
- Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser 405 410 415
- Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp 420 425 430
- Glu Glu Glu Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser
 435 440 445
- Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Pro Glu Glu
 450 455 460
- Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr 465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln

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485 490

<210> 2527

<211> 491

<212> PRT

<213> Homo sapiens

<400> 2527

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu

5 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala

Thr Thr Phe Leu Gln Thr Met Leu Arg Lys Glu Val Asn Ser Gln Leu 35 40 45

Ser Leu Gly Asp Pro Leu Phe Pro Glu Leu Ala Glu Glu Ser Leu Lys
50 55 60

Thr Phe Glu Gln Val Thr Glu Asp Cys Asn Glu Asn Pro Glu Lys Asp 65 70 75 80

Val Leu Ala Glu Leu Val Lys Gln Ile Lys Val Arg Val Asp Met Val 85 90 95

Arg His Arg Ile Lys Glu His Met Leu Lys Lys Tyr Thr Gln Thr Glu 100 105 110

Glu Lys Phe Thr Gly Ala Phe Asn Met Met Gly Gly Cys Leu Gln Asn 115 120 125

Ala Leu Asp Ile Leu Asp Lys Val His Glu Pro Phe Glu Glu Met Lys
130 135 140

Cys Ile Gly Leu Thr Met Gln Ser Met Tyr Glu Asn Tyr Ile Val Pro 145 150 155 160

Glu Asp Lys Arg Glu Met Trp Met Ala Cys Ile Lys Glu Leu His Asp 165 170 175

Val Ser Lys Gly Ala Ala Asn Lys Leu Gly Gly Ala Leu Gln Ala Lys 180 185 190

Ala Arg Ala Lys Lys Asp Glu Leu Arg Arg Lys Met Met Tyr Met Cys
195 200 205

Tyr Arg Asn Ile Glu Phe Phe Thr Lys Asn Ser Ala Phe Pro Lys Thr 210 215 220

- Thr Asn Gly Cys Ser Gln Ala Met Ala Ala Leu Gln Asn Leu Pro Gln 225 230 235 240
- Cys Ser Pro Asp Glu Ile Met Ala Tyr Ala Gln Lys Ile Phe Lys Ile 245 .250 .255
- Leu Asp Glu Glu Arg Asp Lys Val Leu Thr His Ile Asp His Ile Phe 260 265 270
- Met Asp Ile Leu Thr Thr Cys Val Glu Thr Met Cys Asn Glu Tyr Lys 275 280 285
- Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu 290 295 300
- Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr 305 310 315 320
- Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile 325 330 335
- Ser Val Met Lys Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala 340 345 350
- Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val 355 360 365
- Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile 370 375 380
- Val Ala Tyr Thr Leu Ala Thr Ala Gly Val Ser Ser Ser Asp Ser Leu 385 390 395 400
- Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser 405 410 415
- Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp 420 425 430
- Glu Glu Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser 435 440 445

Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Pro Glu Glu 450 460

Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr 465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln 485 490

<210> 2528

<211> 142

<212> PRT

<212> FK1
<213> Homo sapiens

<400> 2528

Met Ser Leu Leu Pro Val Pro Tyr Thr Glu Ala Ala Ser Leu Ser Thr 1 5 10 15

Gly Ser Thr Val Thr Ile Lys Gly Arg Pro Leu Ala Cys Phe Leu Asn 20 25 30

Glu Pro Tyr Leu Gln Val Asp Phe His Thr Glu Met Lys Glu Glu Ser 35 40 45

Asp Ile Val Phe His Phe Gln Val Cys Phe Gly Arg Arg Val Val Met 50 55 60

Asn Ser Arg Glu Tyr Gly Ala Trp Lys Gln Gln Val Glu Ser Lys Asn 70 75 80

Met Pro Phe Gln Asp Gly Gln Glu Phe Glu Leu Ser Ile Ser Val Leu 85 90 95

Pro Asp Lys Tyr Gln Val Met Val Asn Gly Gln Ser Ser Tyr Thr Phe
100 105 110

Asp His Arg Ile Lys Pro Glu Ala Val Lys Met Val Gln Val Trp Arg

Asp Ile Ser Leu Thr Lys Phe Asn Val Ser Tyr Leu Lys Arg

<210> 2529

<211> 298

<212> PRT

<213> Homo sapiens

<400> 2529

Met Ala Glu Ala Met Asp Leu Gly Lys Asp Pro Asn Gly Pro Thr His 1 10 15

- Ser Ser Thr Leu Phe Val Arg Asp Gly Ser Ser Met Ser Phe Tyr
 20 25 30
- Val Arg Pro Ser Pro Ala Lys Arg Arg Leu Ser Thr Leu Ile Leu His 35 40 45
- Gly Gly Thr Val Cys Arg Val Gln Glu Pro Gly Ala Val Leu Leu 50 55 60
- Ala Gln Pro Gly Glu Ala Leu Ala Glu Ala Ser Gly Asp Phe Ile Ser 65 70 75 80
- Thr Gln His Ile Leu Asp Cys Val Glu Arg Asn Glu Arg Leu Glu Leu 85 90 95
- Glu Ala Tyr Arg Leu Gly Pro Ala Ser Ala Ala Asp Thr Gly Ser Glu 100 105 110
- Ala Lys Pro Gly Ala Leu Ala Glu Gly Ala Ala Glu Pro Glu Pro Gln
 115 120 125
- Arg His Ala Gly Arg Ile Ala Phe Thr Asp Ala Asp Asp Val Ala Ile 130 135 140
- Leu Thr Tyr Val Lys Glu Asn Ala Arg Ser Pro Ser Ser Val Thr Gly
 145 150 155 160
- Asn Ala Leu Trp Lys Ala Met Glu Lys Ser Ser Leu Thr Gln His Ser 165 170 175
- Trp Gln Ser Leu Lys Asp Arg Tyr Leu Lys His Leu Arg Gly Gln Glu 180 185 190
- His Lys Tyr Leu Leu Gly Asp Ala Pro Val Ser Pro Ser Ser Gln Lys 195 200 205
- Leu Lys Arg Lys Ala Glu Glu Asp Pro Glu Ala Ala Asp Ser Gly Glu 210 215 220
- Pro Gln Asn Lys Arg Thr Pro Asp Leu Pro Glu Glu Glu Tyr Val Lys 225 230 235 240

Glu Glu Ile Gln Glu Asn Glu Glu Ala Val Lys Lys Met Leu Val Glu 245 250 255

Ala Thr Arg Glu Phe Glu Glu Val Val Val Asp Glu Ser Pro Pro Asp 260 265 270

Phe Glu Ile His Ile Thr Met Cys Asp Asp Asp Pro Pro Thr Pro Glu 275 280 285

Glu Asp Ser Glu Thr Gln Pro Asp Glu Glu 290 295

<210> 2530

<211> 365

<212> PRT

<213> Homo sapiens

<400> 2530

Met Ala Val Met Ala Pro Arg Thr Leu Leu Leu Leu Leu Ser Gly Ala 1 5 10 15

Leu Ala Leu Thr Gln Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe 20 25 30

Phe Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala 35 40 45

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala 50 55 60

Ala Ser Gln Arg Met Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly 65 70 75 80

Pro Glu Tyr Trp Asp Gln Glu Thr Arg Asn Val Lys Ala Gln Ser Gln 85 90 95

Thr Asp Arg Val Asp Leu Gly Thr Leu Arg Gly Tyr Tyr Asn Gln Ser

Glu Ala Gly Ser His Thr Ile Gln Ile Met Tyr Gly Cys Asp Val Gly
115 120 125

Ser Asp Gly Arg Phe Leu Arg Gly Tyr Arg Gln Asp Ala Tyr Asp Gly 130 135 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala 145 150 155 160

897

Asp	Met	Ala	Ala	Gln 165	Ile	Thr	Lys	Arg	Lys 170	Trp	Glu	Ala	Ala	His 175	Glu
Ala	Glu	Gln	Leu 180	Arg	Ala	Tyr	Leu	Asp 185	Gly	Thr	Cys	Val	Glu 190	Trp	Leu
Arg	Arg	Tyr 195	Leu	Glu	Asn	Gly	Lys 200	Glu	Thr	Leu	Gln	Arg 205	Thr	Asp	Pro
Pro	Lys 210	Thr	His	Met	Thr	His 215	His	Pro	Ile	Ser	Asp 220	His	Glu	Ala	Thr
Leu 225	Arg	Cys	Trp	Ala	Leu 230	Gly	Phe	Tyr	Pro	Ala 235	Glu	Ile	Thr	Leu	Thr 240
Trp	Gln	Arg	Asp	Gly 245	Glu	Asp	Gln	Thr	Gln 250	Asp	Thr	Glu	Leu	Val 255	Glu
Thr	Arg	Pro	Ala 260	Gly	Asp	Gly	Thr	Phe 265	Gln	Lys	Trp	Ala	Ala 270	Val	Val
Val	Pro	Ser 275	Gly	Glu	Glu	Gln	Arg 280	Tyr	Thr	Cys	His	Val 285	Gln	His	Glu
Gly	Leu 290	Pro	Lys	Pro	Leu	Thr 295	Leu	Arg	Trp	Glu	Leu 300	Ser	Ser	Gln	Pro
Thr 305	Ile	Pro	Ile	Val	Gly 310	Ile	Ile	Ala	Gly	Leu 315	Val	Leu	Leu	Gly	Ala 320
Val	Ile	Thr	Gly	Ala 325	Val	Val	Ala	Ala	Val 330	Met	Trp	Arg	Arg	Lys 335	Ser
Ser	Asp	Arg	Lys 340	Gly	Gly	Ser	Tyr	Thr 345		Ala	Ala	Ser	Ser 350	Asp	Ser
Ala	Gln	Gly 355	Ser	Asp	Val	Ser	Leu 360	Thr	Ala	Cys	Lys	Val 365			
<21	0>	2531													
<21		155													
<21 <21		PRT Homo	sap	iens											

<400> 2531

Met Glu Leu Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg 1 5 10 15

Met Asp Gly Asp Ser Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly 20 25 30

Ser Glu Asp Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His 35 40 45

Met Thr Ala Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr 50 55 60

Pro Val Asp Ser Val Lys Thr Arg Met Gln Ser Leu Ser Pro Asp Pro 65 70 75 80

Lys Ala Gln Tyr Thr Ser Ile Tyr Gly Ala Leu Lys Lys Ile Met Arg
85 90 95

Thr Glu Gly Phe Trp Arg Pro Leu Arg Gly Val Asn Val Met Ile Met 100 105 110

Gly Ala Gly Pro Ala His Ala Met Tyr Phe Ala Cys Tyr Glu Asn Met 115 120 125

Lys Arg Thr Leu Asn Asp Val Phe His His Gln Gly Asn Ser His Leu 130 135 140

Ala Asn Gly Ile Leu Lys Ala Phe Val Trp Ser 145 150 155

<210> 2532

<211> 384

<212> PRT

<213> Homo sapiens

<400> 2532

Met Lys Val Thr Ser Leu Asp Gly Arg Gln Leu Arg Lys Met Leu Arg 1 5 10 15

Lys Glu Ala Ala Arg Cys Val Val Leu Asp Cys Arg Pro Tyr Leu 20 25 30

Ala Phe Ala Ala Ser Asn Val Arg Gly Ser Leu Asn Val Asn Leu Asn 35 40 45

Ser Val Val Leu Arg Arg Ala Arg Gly Gly Ala Val Ser Ala Arg Tyr 50 55 60

Val Leu Pro Asp Glu Ala Ala Arg Ala Arg Leu Leu Gln Glu Gly Gly 65 70 75 80

- Gly Gly Val Ala Ala Val Val Leu Asp Gln Gly Ser Arg His Trp 85 90 95
- Gln Lys Leu Arg Glu Glu Ser Ala Ala Arg Val Val Leu Thr Ser Leu 100 105 110
- Leu Ala Cys Leu Pro Ala Gly Pro Arg Val Tyr Phe Leu Lys Gly Gly
- Tyr Glu Thr Phe Tyr Ser Glu Tyr Pro Glu Cys Cys Val Asp Val Lys
- Pro Ile Ser Gln Glu Lys Ile Glu Ser Glu Arg Ala Leu Ile Ser Gln 145 150 155 160
- Cys Gly Lys Pro Val Val Asn Val Ser Tyr Arg Pro Ala Tyr Asp Gln
 165 170 175
- Gly Gly Pro Val Glu Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala Tyr 180 185 190
- His Ala Ser Lys Cys Glu Phe Leu Ala Asn Leu His Ile Thr Ala Leu
 195 200 205
- Leu Asn Val Ser Arg Arg Thr Ser Glu Ala Cys Met Thr His Leu His 210 220
- Tyr Lys Trp Ile Pro Val Glu Asp Ser His Thr Ala Asp Ile Ser Ser 225 230 235 240
- His Phe Gln Glu Ala Ile Asp Phe Ile Asp Cys Val Arg Glu Lys Gly 245 250 255
- Gly Lys Val Leu Val His Cys Glu Ala Gly Ile Ser Arg Ser Pro Thr 260 265 270
- Ile Cys Met Ala Tyr Leu Met Lys Thr Lys Gln Phe Arg Leu Lys Glu 275 280 285
- Ala Phe Asp Tyr Ile Lys Gln Arg Arg Ser Met Val Ser Pro Asn Phe 290 295 300

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Gly Phe Met Gly Gln Leu Leu Gln Tyr Glu Ser Glu Ile Leu Pro Ser

Thr Pro Asn Pro Gln Pro Pro Ser Cys Gln Gly Glu Ala Ala Gly Ser

Ser Leu Ile Gly His Leu Gln Thr Leu Ser Pro Asp Met Gln Gly Ala 340

Tyr Cys Thr Phe Pro Ala Ser Val Leu Ala Pro Val Pro Thr His Ser 360

Thr Val Ser Glu Leu Ser Arg Ser Pro Val Ala Thr Ala Thr Ser Cys 375

<210> 2533 <211> 99 <212> PRT <213> Homo sapiens

<400> 2533

Met Ala Gln Gly Lys Val Ala Ser Leu Gly Pro Ile Lys Gln His Thr 10

Phe Leu Lys Asn Met Gly Ile Asp Val Arg Leu Lys Val Leu Leu Asp 25 2.0 .. .

Lys Ser Asn Glu Pro Ser Val Arg Gln Gln Leu Leu Gln Gly Tyr Asp 40 35

Met Leu Met Asn Pro Lys Lys Met Gly Glu Arg Phe Asn Phe Phe Ala 50

Leu Leu Pro His Gln Arg Leu Gln Gly Gly Arg Tyr Gln Arg Asn Ala 75 65 70

Arg Gln Ser Lys Pro Phe Ala Ser Val Val Ala Gly Phe Ser Glu Leu 85

Ala Trp Gln

<210> 2534

<211> 529

<212> PRT

<213> Homo sapiens

<400> 2534

Met Gly Ser Ser Arg Ala Pro Trp Met Gly Arg Val Gly Gly His Gly
1 10 15

Met Met Ala Leu Leu Leu Ala Gly Leu Leu Leu Pro Gly Thr Leu Ala 20 25 30

Lys Ser Ile Gly Thr Phe Ser Asp Pro Cys Lys Asp Pro Thr Arg Ile 35 40 45

Thr Ser Pro Asn Asp Pro Cys Leu Thr Gly Lys Gly Asp Ser Ser Gly 50 55 60

Phe Ser Ser Tyr Ser Gly Ser Ser Ser Gly Ser Ser Ile Ser Ser 65 70 75 80

Ala Arg Ser Ser Gly Gly Gly Ser Ser Gly Ser Ser Gly Ser Ser 85 90 95

Ile Ala Gln Gly Gly Ser Ala Gly Ser Phe Lys Pro Gly Thr Gly Tyr
100 105 110

Ser Gln Val Ser Tyr Ser Ser Gly Ser Gly Ser Ser Leu Gln Gly Ala 115 120 125

Ser Gly Ser Ser Gln Leu Gly Ser Ser Ser Ser His Ser Gly Ser Ser 130 135 140

Gly Ser His Ser Gly Ser Ser Ser Ser His Ser Ser Ser Ser Ser Ser 145 150 155 160

Phe Gln Phe Ser Ser Ser Ser Phe Gln Val Gly Asn Gly Ser Ala Leu 165 170 175

Pro Thr Asn Asp Asn Ser Tyr Arg Gly Ile Leu Asn Pro Ser Gln Pro 180 185 190

Gly Gln Ser Ser Ser Ser Gln Thr Ser Gly Val Ser Ser Ser Gly
195 200 205

Gln Ser Val Ser Ser Asn Gln Arg Pro Cys Ser Ser Asp Ile Pro Asp 210 215 220

Ser Pro Cys Ser Gly Gly Pro Ile Val Ser His Ser Gly Pro Tyr Ile 225 230 235 240

Pro Ser Ser His Ser Val Ser Gly Gly Gln Arg Pro Val Val Val Val 245 250 255

- Val Asp Gln His Gly Ser Gly Ala Pro Gly Val Val Gln Gly Pro Pro 260 265 270
- Cys Ser Asn Gly Gly Leu Pro Gly Lys Pro Cys Pro Pro Ile Thr Ser 275 280 285
- Val Asp Lys Ser Tyr Gly Gly Tyr Glu Val Val Gly Gly Ser Ser Asp 290 295 300
- Ser Tyr Leu Val Pro Gly Met Thr Tyr Ser Lys Gly Lys Ile Tyr Pro 305 310 315 320
- Val Gly Tyr Phe Thr Lys Glu Asn Pro Val Lys Gly Ser Pro Gly Val 325 330 335
- Pro Ser Phe Ala Ala Gly Pro Pro Ile Ser Glu Gly Lys Tyr Phe Ser 340 345 350
- Ser Asn Pro Ile Ile Pro Ser Gln Ser Ala Ala Ser Ser Ala Ile Ala 355 360 365
- Phe Gln Pro Val Gly Thr Gly Gly Val Gln Leu Cys Gly Gly Gly Ser 370 380
- Thr Gly Ser Lys Gly Pro Cys Ser Pro Ser Ser Ser Arg Val Pro Ser 385 390 395 400
- Ser Ser Ser Ser Ser Ser Ser Gly Ser Pro Tyr His Pro Cys Gly
 405 410 415
- Ser Ala Ser Gln Ser Pro Cys Ser Pro Pro Gly Thr Gly Ser Phe Ser 420 425 430
- Ser Ser Ser Ser Gln Ser Ser Gly Lys Ile Ile Leu Gln Pro Cys 435 440 445
- Gly Ser Lys Ser Ser Ser Ser Gly His Pro Cys Met Ser Val Ser Ser 450 455 460
- Leu Thr Leu Thr Gly Gly Pro Asp Gly Ser Pro His Pro Asp Pro Ser 465 470 475 480

Ala Gly Ala Lys Pro Cys Gly Ser Ser Ser Ala Gly Lys Ile Pro Cys 485 490 495

Arg Ser Ile Arg Asp Ile Leu Ala Gln Val Lys Pro Leu Gly Pro Gln 500 505 510

Leu Ala Asp Pro Glu Val Phe Leu Pro Gln Gly Glu Leu Leu Asp Ser 515 520 525

Pro

<210> 2535

<211> 125

<212> PRT

<213> Homo sapiens

<400> 2535

Met Pro Pro Lys Asp Asp Lys Lys Lys Lys Asp Ala Gly Lys Ser Ala 1 5 10 15

Lys Lys Asp Lys Asp Pro Val Asn Lys Ser Gly Gly Lys Ala Lys Lys 20 25 30

Lys Lys Trp Ser Lys Gly Lys Val Arg Asp Lys Leu Asn Asn Leu Val 35 40 45

Leu Phe Asp Lys Ala Thr Tyr Asp Lys Leu Cys Lys Glu Val Pro Asn 50 55 60

Tyr Lys Leu Ile Thr Pro Ala Val Val Ser Glu Arg Leu Lys Ile Arg 65 70 75 80

Gly Ser Leu Ala Arg Ala Ala Leu Gln Glu Leu Leu Ser Lys Gly Leu 85 90 95

Ile Lys Leu Val Ser Lys His Arg Ala Gln Val Ile Tyr Thr Arg Asn

Thr Lys Gly Gly Asp Ala Pro Ala Ala Gly Glu Asp Ala 115 120 125

<210> 2536

<211> 335

<212> PRT

<213> Homo sapiens

<400> 2536

Met Gly Lys Val Lys Val Gly Val Asn Gly Phe Gly Arg Ile Gly Arg 1 5 10 15

- Leu Val Thr Arg Ala Ala Phe Asn Ser Gly Lys Val Asp Ile Val Ala 20 25 30
- Ile Asn Asp Pro Phe Ile Asp Leu Asn Tyr Met Val Tyr Met Phe Gln 35 40 45
- Tyr Asp Ser Thr His Gly Lys Phe His Gly Thr Val Lys Ala Glu Asn 50 55 60
- Gly Lys Leu Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg 65 70 75 80
- Asp Pro Ser Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val 85 90 95
- Glu Ser Thr Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu 100 105 110
- Gln Gly Gly Ala Lys Arg Val Ile Ile Ser Ala Pro Ser Ala Asp Ala 115 120 125
- Pro Met Phe Val Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu 130 135 140
- Lys Ile Ile Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu 145 150 155 160
- Ala Lys Val Ile His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr 165 170 175
- Thr Val His Ala Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser 180 185 190
- Gly Lys Leu Trp Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro 195 200 205
- Ala Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu 210 215 220
- Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val 225 230 235 240

Ser Val Val Asp Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp 245 250 255

Asp Ile Lys Lys Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly 260 265 270

Ile Leu Gly Tyr Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser 275 280 285

Asp Thr His Ser Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn 290 295 300

Asp His Phe Val Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr 305 310 315 320

Ser Asn Arg Val Val Asp Leu Met Ala His Met Ala Ser Lys Glu 325 330 335

<210> 2537

<211> 114

<212> PRT

<213> Homo sapiens

<400> 2537

Met Ala Ser Val Ser Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu 1 10 15

His Asp Asp Glu Val Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile 20 25 30

Lys Ala Ala Gly Val Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala 35 40 45

Lys Ala Leu Ala Asn Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly 50 55 60

Ala Gly Gly Pro Ala Pro Ala Ala Gly Ala Ala Pro Ala Gly Gly Pro 65 70 75 80

Ala Pro Ser Thr Ala Ala Ala Pro Ala Glu Glu Lys Lys Val Glu Ala 85 90 95

Lys Lys Glu Glu Ser Glu Glu Ser Asp Asp Met Gly Phe Gly Leu 100 105 110

Phe Asp

<210> 2538

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2538

Met Ala Ala Gly Gly Ser Asp Pro Arg Ala Gly Asp Val Glu Glu Asp 10

Ala Ser Gln Leu Ile Phe Pro Lys Glu Phe Glu Thr Ala Glu Thr Leu 25

Leu Asn Ser Glu Val His Met Leu Leu Glu His Arg Lys Gln Gln Asn

Glu Ser Ala Glu Asp Glu Gln Glu Leu Ser Glu Val Phe Met Lys Thr

Leu Asn Tyr Thr Ala Arg Phe Ser Arg Phe Lys Asn Arg Glu Thr Ile

Ala Ser Val Arg Ser Leu Leu Cln Lys Lys Leu His Lys Phe Glu

Leu Ala Cys Leu Ala Asn Leu Cys Pro Glu Thr Ala Glu Glu Ser Lys 100 105

Ala Leu Ile Pro Ser Leu Glu Gly Arg Phe Glu Asp Glu Glu Leu Gln 120

Gln Ile Leu Asp Asp Ile Gln Thr Lys Arg Ser Phe Gln Tyr 130 135

<210> 2539 <211> 178 <212> PRT <213> Homo sapiens

<400> 2539

Met Pro Ala Tyr His Ser Ser Leu Met Asp Pro Asp Thr Lys Leu Ile 5

Gly Asn Met Ala Leu Leu Pro Ile Arg Ser Gln Phe Lys Gly Pro Ala 20 25 30

Pro Arg Glu Thr Lys Asp Thr Asp Ile Val Asp Glu Ala Ile Tyr Tyr

35 40 45

Phe Lys Ala Asn Val Phe Phe Lys Asn Tyr Glu Ile Lys Asn Glu Ala 50 55 60

Asp Arg Thr Leu Ile Tyr Ile Thr Leu Tyr Ile Ser Glu Cys Leu Lys 65 70 75 80

Lys Leu Gln Lys Cys Asn Ser Lys Ser Gln Gly Glu Lys Glu Met Tyr 85 90 95

Thr Leu Gly Ile Thr Asn Phe Pro Ile Pro Gly Glu Pro Gly Phe Pro 100 105 110

Leu Asn Ala Ile Tyr Ala Lys Pro Ala Asn Lys Gln Glu Asp Glu Val 115 120 125

Met Arg Ala Tyr Leu Gln Gln Leu Arg Gln Glu Thr Gly Leu Arg Leu 130 135 140

Cys Glu Lys Val Phe Asp Pro Gln Asn Asp Lys Pro Ser Lys Trp Trp 145 150 155 160

Thr Cys Phe Val Lys Arg Gln Phe Met Asn Lys Ser Leu Ser Gly Pro 165 170 175

Gly Gln

<210> 2540

<211> 351

<212> PRT

<213> Homo sapiens

<400> 2540

Met Glu Thr Asn Phe Ser Thr Pro Leu Asn Glu Tyr Glu Glu Val Ser
1 5 10 15

Tyr Glu Ser Ala Gly Tyr Thr Val Leu Arg Ile Leu Pro Leu Val Val 20 25 30

Leu Gly Val Thr Phe Val Leu Gly Val Leu Gly Asn Gly Leu Val Ile 35 40 45

Trp Val Ala Gly Phe Arg Met Thr Arg Thr Val Thr Thr Ile Cys Tyr 50 55 60

Leu 65	Asn	Leu	Ala	Leu	Ala 70	Asp	Phe	Ser	Phe	Thr 75	Ala	Thr	Leu	Pro	Phe 80
Leu	Ile	Val	Ser	Met 85	Ala	Met	Gly	Glu	Lys 90	Trp	Pro	Phe	Gly	Trp 95	Phe
Leu	Cys	Lys	Leu 100	Ile	His	Ile	Val	Val 105	Asp	Ile	Asn	Leu	Phe 110	Gly	Ser
Val	Phe	Leu 115	Ile	Gly	Phe	Ile	Ala 120	Leu	Asp	Arg	Cys	Ile 125	Cys	Val	Leu
His	Pro 130	Val	Trp	Ala	Gln	Asn 135	His	Arg	Thr	Val	Ser 140	Leu	Ala	Met	Lys
Val 145	Ile	Val	Gly	Pro	Trp 150	Ile	Leu	Ala	Leu	Val 155	Leu	Thr	Leu	Pro	Val 160
Phe	Leu	Phe	Leu	Thr 165	Thr	Val	Thr	Ile	Pro 170	Asn	Gly	Asp	Thr	Tyr 175	Суѕ
Thr	Phe	Asn	Phe 180	Ala	Ser	Trp	Gly	Gly 185	Thr	Pro	Glu	Glu	Arg 190	Leu	Lys
Val	Ala	Ile 195		Met	Leu	Thr	Ala 200	Arg	Gly	Ile	Ile	Arg 205	Phe	Val	Ile
Gly	Phe 210	Ser	Leu	Pro	Met	Ser 215	Ile	Val	Ala	Ile	Cys 220	Tyr	Gly	Leu	Ile
Ala 225	Ala	Lys	Ile	His	Lys 230	Lys	Gly	Met	Ile	Lys 235	Ser	Ser	Arg	Pro	Le: 240
Arg	Val	Leu	Thr	Ala 245		Val	Ala	Ser	Phe 250		Ile	Cys	Trp	Phe 255	
Phe	Gln	Leu	Val 260		Leu	Leu	Gly	Thr 265		Trp	Leu	Lys	Glu 270		Leı
Phe	Tyr	Gly 275		Tyr	Lys	Ile	Ile 280		Ile	Leu	Val	Asn 285	Pro	Thr	Se
Ser	Leu 290		Phe	Phe	Asn	Ser 295		Leu	Asn	Pro	Met 300		Tyr	Val	Phe

Val Gly Gln Asp Phe Arg Glu Arg Leu Ile His Ser Leu Pro Thr Ser 305 310 315 320

Leu Glu Arg Ala Leu Ser Glu Asp Ser Ala Pro Thr Asn Asp Thr Ala 325 330 335

Ala Asn Ser Ala Ser Pro Pro Ala Glu Thr Glu Leu Gln Ala Met 340 345 350

<210> 2541

<211> 349

<212> PRT

<213> Homo sapiens

<400> 2541

Met Glu Thr Pro Pro Val Asn Thr Ile Gly Glu Lys Asp Thr Ser Gln 1 5 10 15

Pro Gln Gln Glu Trp Glu Lys Asn Leu Arg Glu Asn Leu Asp Ser Val 20 25 30

Ile Gln Ile Arg Gln Gln Pro Arg Asp Pro Pro Thr Glu Thr Leu Glu
35 40 45

Leu Glu Val Ser Pro Asp Pro Ala Ser Gln Ile Leu Glu His Thr Gln 50 55 60

Gly Ala Glu Lys Leu Val Ala Glu Leu Glu Gly Asp Ser His Lys Ser 65 70 75 80

His Gly Ser Thr Ser Gln Met Pro Glu Ala Leu Gln Ala Ser Asp Leu 85 90 95

Trp Tyr Cys Pro Asp Gly Ser Phe Val Lys Lys Ile Val Ile Arg Gly
100 105 110

His Gly Leu Asp Lys Pro Lys Leu Gly Ser Cys Cys Arg Val Leu Ala 115 120 125

Leu Gly Phe Pro Phe Gly Ser Gly Pro Pro Glu Gly Trp Thr Glu Leu 130 135 140

Thr Met Gly Val Gly Pro Trp Arg Glu Glu Thr Trp Gly Glu Leu Ile 145 150 155 160

Glu Lys Cys Leu Glu Ser Met Cys Gln Gly Glu Glu Ala Glu Leu Gln 165 170 175 Leu Pro Gly His Ser Gly Pro Pro Val Arg Leu Thr Leu Ala Ser Phe
180 185 190

Thr Gln Gly Arg Asp Ser Trp Glu Leu Glu Thr Ser Glu Lys Glu Ala
195 200 205

Leu Ala Arg Glu Glu Arg Ala Arg Gly Thr Glu Leu Phe Arg Ala Gly 210 215 220

Asn Pro Glu Gly Ala Ala Arg Cys Tyr Gly Arg Ala Leu Arg Leu Leu 225 230 235 240

Leu Thr Leu Pro Pro Pro Gly Pro Pro Glu Arg Thr Val Leu His Ala 245 250 255

Asn Leu Ala Ala Cys Gln Leu Leu Leu Gly Gln Pro Gln Leu Ala Ala 260 265 270

Gln Ser Cys Asp Arg Val Leu Glu Arg Glu Pro Gly His Leu Lys Ala 275 280 285

Leu Tyr Arg Arg Gly Val Ala Gln Ala Ala Leu Gly Asn Leu Glu Lys 290 295 300

Ala Thr Ala Asp Leu Lys Lys Val Leu Ala Ile Asp Pro Lys Asn Arg 305 310 315 320

Ala Ala Gln Glu Leu Gly Lys Val Val Ile Gln Gly Lys Asn Gln 325 330 335

Asp Ala Gly Leu Ala Gln Gly Leu Arg Lys Met Phe Gly 340 345

<210> 2542

<211> 417

<212> PRT

<213> Homo sapiens

<400> 2542

Met Gly Arg Arg Ala Pro Glu Leu Tyr Arg Ala Pro Phe Pro Leu 1 5 10 15

Tyr Ala Leu Gln Val Asp Pro Ser Thr Gly Leu Leu Ile Ala Ala Gly
20 25 30

Gly Gly Gly Ala Ala Lys Thr Gly Ile Lys Asn Gly Val His Phe Leu 35 40 45

- Gln Leu Glu Leu Ile Asn Gly Arg Leu Ser Ala Ser Leu Leu His Ser 50 55 60
- His Asp Thr Glu Thr Arg Ala Thr Met Asn Leu Ala Leu Ala Gly Asp 65 70 75 80
- Ile Leu Ala Ala Gly Gln Asp Ala His Cys Gln Leu Leu Arg Phe Gln 85 90 95
- Ala His Gln Gln Gln Gly Asn Lys Ala Glu Lys Ala Gly Ser Lys Glu 100 105 110
- Gln Gly Pro Arg Gln Arg Lys Gly Ala Ala Pro Ala Glu Lys Lys Cys 115 120 125
- Gly Ala Glu Thr Gln His Glu Gly Leu Glu Leu Arg Val Glu Asn Leu 130 135 140
- Gln Ala Val Gln Thr Asp Phe Ser Ser Asp Pro Leu Gln Lys Val Val 145 150 155 160
- Cys Phe Asn His Asp Asn Thr Leu Leu Ala Thr Gly Gly Thr Asp Gly 165 170 175
- Tyr Val Arg Val Trp Lys Val Pro Ser Leu Glu Lys Val Leu Glu Phe
 180 185 190
- Lys Ala His Glu Gly Glu Ile Glu Asp Leu Ala Leu Gly Pro Asp Gly
 195 200 205
- Lys Leu Val Thr Val Gly Arg Asp Leu Lys Ala Ser Val Trp Gln Lys 210 220
- Asp Gln Leu Val Thr Gln Leu His Trp Gln Glu Asn Gly Pro Thr Phe 225 230 235 240
- Ser Ser Thr Pro Tyr Arg Tyr Gln Ala Cys Arg Phe Gly Gln Val Pro 245 250 255
- Asp Gln Pro Ala Gly Leu Arg Leu Phe Thr Val Gln Ile Pro His Lys 260 265 270
- Arg Leu Arg Gln Pro Pro Pro Cys Tyr Leu Thr Ala Trp Asp Gly Ser

275 280 285

Asn Phe Leu Pro Leu Arg Thr Lys Ser Cys Gly His Glu Val Val Ser 290 295 300

Cys Leu Asp Val Ser Glu Ser Gly Thr Phe Leu Gly Leu Gly Thr Val 305 310 315 320

Thr Gly Ser Val Ala Ile Tyr Ile Ala Phe Ser Leu Gln Cys Leu Tyr 325 330 335

Tyr Val Arg Glu Ala His Gly Ile Val Val Thr Asp Val Ala Phe Leu 340 345 350

Pro Glu Lys Gly Arg Gly Pro Glu Leu Leu Gly Ser His Glu Thr Ala . 355 360 365

Leu Phe Ser Val Ala Val Asp Ser Arg Cys Gln Leu His Leu Leu Pro 370 375 380

Ser Arg Arg Ser Val Pro Val Trp Leu Leu Leu Leu Cys Val Gly 385 390 395 400

Leu Ile Ile Val Thr Ile Leu Leu Gln Ser Ala Phe Pro Gly Phe 405 410 415

Leu

<210> 2543

<211> 309

<212> PRT

<213> Homo sapiens

<400> 2543

Met Arg Gln Asn Asp Lys Ile Met Cys Ile Leu Glu Asn Arg Lys Lys 1 5 10 15

Arg Asp Arg Lys Asn Leu Cys Arg Ala Ile Asn Asp Phe Gln Gln Ser 20 25 30

Phe Gln Lys Pro Glu Thr Arg Arg Glu Phe Asp Leu Ser Asp Pro Leu 35 40 45

Ala Leu Lys Lys Asp Leu Pro Ala Arg Gln Ser Asp Asn Asp Val Arg 50 55 60

Asn 65	Thr	Ile	Ser	Gly	Met 70	Gln	Lys	Phe	Met	Gly 75	Glu	Asp	Leu	Asn	Phe 80
His	Glu	Arg	Lys	Lys 85	Phe	Gln	Glu	Glu	Gln 90	Asn	Arg	Glu	Trp	Ser 95	Leu
Gln	Gln	Gln	Arg 100	Glu	Trp	Lys	Asn	Ala 105	Arg	Ala	Glu	Gln	Lys 110	Cys	Ala
Glu	Ala	Leu 115	Tyr	Thr	Glu	Thr	Arg 120	Leu	Gln	Phe	Asp	Glu 125	Thr	Ala	Lys
His	Leu 130	Gln	Lys	Leu	Glu	Ser 135	Thr	Thr	Arg	ГÀЗ	Ala 140	Val	Cys	Ala	Ser
Val 145	Lys	Asp	Phe	Asn	Lys 150	Ser	Gln	Ala	Ile	Glu 155	Ser	Val	Glu	Arg	Lys 160
Lys	Gln	Glu	Lys	Lys 165	Gln	Glu	Gln	Glu	Asp 170	Asn	Leu	Ala	Glu	Ile 175	Thr
Asn	Leu	Leu	Arg 180	Gly	Asp	Leu	Leu	Ser 185	Glu	Asn	Pro	Gln	Gln 190	Ala	Ala
Ser	Ser	Phe 195	Gly	Pro	His	Arg	Val 200	Val	Pro	Asp	Arg	Trp 205		Gly	Met
Thr	Gln 210	Glu	Gln	Leu	Glu	Gln 215	Ile	Arg	Leu	Val	Gln 220	Lys	Gln	Gln	Ile
Gln 225	Glu	Lys	Leu	Arg	Leu 230		Glu	Glu	Lys	Arg 235		Arg	Asp	Leu	As _]
Trp	Asp	Arg	Arg	Arg 245		Gln	Gly	Ala	Arg 250		Thr	Leu	Leu	Phe 255	
Arg	Gln	Gln	Trp 260		Arg	Gln	Arg	Asp 265		Arg	Arg	Ala	Leu 270	Asp	Se:
Ser	Asn	Leu 275		Leu	Ala	Lys	Glu 280		His	Leu	Gln	Lys 285		Tyr	Me
Asn	Glu 290		Tyr	Thr	Asn	Gln 295		Thr	Gly	Asp	Tyr 300		Thr	Gln	Ph

Asn Thr Gly Ser Arg 305

<210> 2544

<211> 838

<212> PRT

<213> Homo sapiens

<400> 2544

Met Gln Glu Gln Glu Ile Gly Phe Ile Ser Lys Tyr Asn Glu Gly Leu 1 5 10 15

Cys Val Asn Thr Asp Pro Val Ser Ile Leu Thr Ser Ile Leu Asp Met
20 25 30

Ser Leu His Arg Gln Met Gly Ser Asp Arg Asp Leu Gln Ser Ser Ala 35 40 45

Ser Ser Val Ser Leu Pro Ser Val Lys Lys Ala Pro Lys Lys Arg Arg 50 55 60

Ile Ser Ile Gly Ser Leu Phe Arg Arg Lys Lys Asp Asn Lys Arg Lys 65 70 75 80

Ser Arg Glu Leu Asn Gly Gly Val Asp Gly Ile Ala Ser Ile Glu Ser 85 90 95

Ile His Ser Glu Met Cys Thr Asp Lys Asn Ser Ile Phe Ser Thr Asn
100 105 110

Thr Ser Ser Asp Asn Gly Leu Thr Ser Ile Ser Lys Gln Ile Gly Asp 115 120 125

Phe Ile Glu Cys Pro Leu Cys Leu Leu Arg His Ser Lys Asp Arg Phe 130 135 140

Pro Asp Ile Met Thr Cys His His Arg Ser Cys Val Asp Cys Leu Arg 145 150 155 160

Gln Tyr Leu Arg Ile Glu Ile Ser Glu Ser Arg Val Asn Ile Ser Cys 165 170 175

Pro Glu Cys Thr Glu Arg Phe Asn Pro His Asp Ile Arg Leu Ile Leu 180 185 190

Ser Asp Asp Val Leu Met Glu Lys Tyr Glu Glu Phe Met Leu Arg Arg 195 200 205

Trp Leu Val Ala Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp Cys 210 215 220

- Gly Tyr Ala Val Ile Ala Phe Gly Cys Ala Ser Cys Pro Lys Leu Thr 225 230 235 240
- Cys Gly Arg Glu Gly Cys Gly Thr Glu Phe Cys Tyr His Cys Lys Gln 245 250 255
- Ile Trp His Pro Asn Gln Thr Cys Asp Ala Ala Arg Gln Glu Arg Ala 260 265 270
- Gln Ser Leu Arg Leu Arg Thr Ile Arg Ser Ser Ser Ile Ser Tyr Ser 275 280 285
- Gln Glu Ser Gly Ala Ala Ala Asp Asp Ile Lys Pro Cys Pro Arg Cys 290 295 300
- Ala Ala Tyr Ile Ile Lys Met Asn Asp Gly Ser Cys Asn His Met Thr 305 310 315 320
- Cys Ala Val Cys Gly Cys Glu Phe Cys Trp Leu Cys Met Lys Glu Ile 325 330 335
- Ser Asp Leu His Tyr Leu Ser Pro Ser Gly Cys Thr Phe Trp Gly Lys 340 345 350
- Lys Pro Trp Ser Arg Lys Lys Lys Ile Leu Trp Gln Leu Gly Thr Leu 355 360 365
- Val Gly Ala Pro Val Gly Ile Ala Leu Ile Ala Gly Ile Ala Ile Pro 370 375 380
- Ala Met Ile Ile Gly Ile Pro Val Tyr Val Gly Arg Lys Ile His Asn 385 390 395 400
- Arg Tyr Glu Gly Lys Asp Val Ser Lys His Lys Arg Asn Leu Ala Ile
 405 410 415
- Ala Gly Gly Val Thr Leu Ser Val Ile Val Ser Pro Val Val Ala Ala 420 425 430
- Val Thr Val Gly Ile Gly Val Pro Ile Met Leu Ala Tyr Val Tyr Gly 435 440 445

Val	Val 450	Pro	Ile	Ser	Leu	Cys 455	Arg	Ser	Gly	Gly	Cys 460	Gly	Val	Ser	Ala
Gly 465	Asn	Gly	Lys	Gly	Val 470	Arg	Ile	Glu	Phe	Asp 475	Asp	Glu	Asn	Asp	Ile 480
Asn	Val	Gly	Gly	Thr 485	Asn	Thr	Ala	Val	Asp 490	Thr	Thr	Ser	Val	Ala 495	Glu
Ala	Arg	His	Asn 500	Pro	Ser	Ile	Gly	Glu 505	Gly	Ser	Val	Gly	Gly 510	Leu	Thr
Gly	Ser	Leu 515	Ser	Ala	Ser	Gly	Ser 520	His	Met	Asp	Arg	Ile 525	Gly	Ala	Ile
Arg	Asp 530	Asn	Leu	Ser	Glu	Thr 535	Ala	Ser	Thr	Met	Ala 540	Leu	Ala	Gly	Ala
Ser 545	Ile	Thr	Gly	Ser	Leu 550	Ser	Gly	Ser	Ala	Met 555	Val	Asn	Cys	Phe	Asn 560
Arg	Leu	Glu	Val	Gln 565	Ala	Asp	Val	Gln	Lys 570	Glu	Arg	Tyr	Ser	Leu 575	Ser
Gly	Glu	Ser	Gly 580	Thr	Val	Ser	Leu	Gly 585	Thr	Val	Ser	Asp	Asn 590	Ala	Ser
Thr	Lys	Ala 595	Met	Ala	Gly	Ser	Ile 600	Leu	Asn	Ser	Tyr	Ile 605	Pro	Leu	Asp
Lys	Glu 610	Gly	Asn	Ser	Met	Glu 615	Val	Gln	Val	Asp	Ile 620		Ser	Lys	Pro
Ser 625	Lys	Phe	Arg	His	Asn 630		Gly	Ser	Ser	Ser 635		Asp	Asp	Gly	Se1
Ala	Thr	Arg	Ser	Tyr 645	Ala	Gly	Gly	Ser	Ser 650		Gly	Leu	Pro	Glu 655	Gly
Lys	Ser	Ser	Ala 660		Lys	Trp	Ser	Lys 665		Ala	Thr	Ala	Gly 670		Lys
Ser	Lys	Ser 675	_	Lys	Leu	Arg	Lys 680		Gly	Asn	Met	Lys 685		Asn	Glı

Thr Arg Glu Asp Met Asp Ala Gln Leu Leu Glu Gln Gln Ser Thr Asn 690 695 700

Ser Ser Glu Phe Glu Ala Pro Ser Leu Ser Asp Ser Met Pro Ser Val 705 710 715 720

Ala Asp Ser His Ser Ser His Phe Ser Glu Phe Ser Cys Ser Asp Leu 725 730 735

Glu Ser Met Lys Thr Ser Cys Ser His Gly Ser Ser Asp Tyr His Thr 740 745 750

Arg Phe Ala Thr Val Asn Ile Leu Pro Glu Val Glu Asn Asp Arg Leu
755 760 765

Glu Asn Ser Pro His Gln Cys Ser Ile Ser Val Val Thr Gln Thr Ala 770 775 780

Ser Cys Ser Glu Val Ser Gln Leu Asn His Ile Ala Glu Glu His Gly 785 790 795 800

Asn Asn Gly Ile Lys Pro Asn Val Asp Leu Tyr Phe Gly Asp Ala Leu 805 810 815

Lys Glu Thr Asn Asn Asn His Ser His Gln Thr Met Glu Leu Lys Val 820 825 830

Ala Ile Gln Thr Glu Ile 835

<210> 2545

<211> 1539

<212> PRT

<213> Homo sapiens

<400> 2545

Met Glu Pro Gly Cys Asp Glu Phe Leu Pro Pro Pro Glu Cys Pro Val 5 10 15

Phe Glu Pro Ser Trp Ala Glu Phe Gln Asp Pro Leu Gly Tyr Ile Ala 20 25 30

Lys Ile Arg Pro Ile Ala Glu Lys Ser Gly Ile Cys Lys Ile Arg Pro 35 40 45

Pro Ala Asp Trp Gln Pro Pro Phe Ala Val Glu Val Asp Asn Phe Arg 50 55 60

Phe Thr Pro Arg Val Gln Arg Leu Asn Glu Leu Glu Ala Gln Thr Arg Val Lys Leu Asn Tyr Leu Asp Gln Ile Ala Lys Phe Trp Glu Ile Gln Gly Ser Ser Leu Lys Ile Pro Asn Val Glu Arg Lys Ile Leu Asp Leu Tyr Ser Leu Ser Lys Ile Val Ile Glu Glu Gly Gly Tyr Glu Ala Ile Cys Lys Asp Arg Arg Trp Ala Arg Val Ala Gln Arg Leu His Tyr Pro Pro Gly Lys Asn Ile Gly Ser Leu Leu Arg Ser His Tyr Glu Arg Ile Ile Tyr Pro Tyr Glu Met Phe Gln Ser Gly Ala Asn His Val Gln Cys Asn Thr His Pro Phe Asp Asn Glu Val Lys Asp Lys Glu Tyr Lys Pro His Ser Ile Pro Leu Arg Gln Ser Val Gln Pro Ser Lys Phe Ser Ser Tyr Ser Arg Arg Ala Lys Arg Leu Gln Pro Asp Pro Glu Pro Thr Glu Glu Asp Ile Glu Lys His Pro Glu Leu Lys Lys Leu Gln Ile Tyr Gly Pro Gly Pro Lys Met Met Gly Leu Gly Leu Met Ala Lys Asp Lys Asp Lys Thr Val His Lys Lys Val Thr Cys Pro Pro Thr Val Thr Val Lys Asp Glu Gln Ser Gly Gly Gly Asn Val Ser Ser Thr Leu Leu Lys Gln His Leu Ser Leu Glu Pro Cys Thr Lys Thr Thr Met Gln Leu Arg Lys

Asn 305	His	Ser	Ser	Ala	Gln 310	Phe	Ile	Asp	Ser	Tyr 315	Ile	Cys	Gln	Val	Cys 320
Ser	Arg	Gly	Asp	Glu 325	Asp	Asn	Lys	Leu	Leu 330	Phe	Cys	Asp	Gly	Cys 335	Asp
Asp	Asn	Tyr	His 340	Ile	Phe	Cys		Leu 345	Pro	Pro	Leu	Pro	Glu 350	Ile	Pro
Arg	Gly	11e 355	Trp	Arg	Cys	Pro	Lys 360	Cys	Ile	Leu	Ala	Glu 365	Суѕ	Lys	Gln
Pro	Pro 370	Glu	Ala	Phe	Gly	Phe 375	Glu	Gln	Ala	Thr	Gln 380	Glu	Tyr	Ser	Leu
Gln 385	Ser	Phe	Gly	Glu	Met 390	Ala	Asp	Ser	Phe	Lys 395	Ser	Asp	Tyr	Phe	Asn 400
Met	Pro	Val	His	Met 405	Val	Pro	Thr	Glu	Leu 410	Val	Glu	Lys	Glu	Phe 415	Trp
Arg	Leu	Val	Ser 420	Ser	Ile	Glu	Glu	Asp 425	Val	Thr	Val	Glu	Tyr 430	Gly	Ala
Asp	Ile	His 435	Ser	Lys	Glu	Phe	Gly 440	Ser	Gly	Phe	Pro	Val 445	Ser	Asn	Ser
Lys	Gln 450	Asn	Leu	Ser	Pro	Glu 455	Glu	Lys	Glu	Tyr	Ala 460	Thr	Ser	Gly	Trp
Asn 465	Leu	Asn	Val	Met	Pro 470	Val	Leu	Asp	Gln	Ser 475	Val	Leu	Сув	His	Ile 480
Asn	Ala	Asp	Ile	Ser 485		Met	Lys	Val	Pro 490		Leu	Tyr	Val	Gly 495	Met
Val	Phe	Ser	Ala 500		Cys	Trp		Ile 505		Asp	His	Trp	Ser 510	Tyr	Ser
Ile	Asn	Tyr 515		His	Trp	Gly	Glu 520		Lys	Thr	Trp	Tyr 525		Val	Pro
Ser	Leu 530		Ala	Glu	His	Leu 535		Glu	Val	Met	Lys 540		Leu	Thr	Pro

Glu Leu Phe Asp Ser Gln Pro Asp Leu Leu His Gln Leu Val Thr Leu 545 550 555 560

- Met Asn Pro Asn Thr Leu Met Ser His Gly Val Pro Val Val Arg Thr 565 570 575
- Asn Gln Cys Ala Gly Glu Phe Val Ile Thr Phe Pro Arg Ala Tyr His 580 585 590
- Ser Gly Phe Asn Gln Gly Tyr Asn Phe Ala Glu Ala Val Asn Phe Cys 595 600 605
- Thr Ala Asp Trp Leu Pro Ala Gly Arg Gln Cys Ile Glu His Tyr Arg 610 615 620
- Arg Leu Arg Arg Tyr Cys Val Phe Ser His Glu Glu Leu Ile Cys Lys 625 630 635 640
- Met Ala Ala Phe Pro Glu Thr Leu Asp Leu Asn Leu Ala Val Ala Val 645 650 655
- His Lys Glu Met Phe Ile Met Val Glu Glu Glu Arg Arg Leu Arg Lys
 660 665 670
- Ala Leu Leu Glu Lys Gly Val Thr Glu Ala Glu Arg Glu Ala Phe Glu 675 680 685
- Leu Leu Pro Asp Asp Glu Arg Gln Cys Ile Lys Cys Lys Thr Thr Cys 690 695 700
- Phe Leu Ser Ala Leu Ala Cys Tyr Asp Cys Pro Asp Gly Leu Val Cys 705 710 715 720
- Leu Ser His Ile Asn Asp Leu Cys Lys Cys Ser Ser Ser Arg Gln Tyr 725 730 735
- Leu Arg Tyr Arg Tyr Thr Leu Asp Glu Leu Pro Thr Met Leu His Lys
 740 745 750
- Leu Lys Ile Arg Ala Glu Ser Phe Asp Thr Trp Ala Asn Lys Val Arg
 755 760 765
- Val Ala Leu Glu Val Glu Asp Gly Arg Lys Arg Ser Phe Glu Glu Leu 770 775 780
- Arg Ala Leu Glu Ser Glu Ala Arg Glu Arg Arg Phe Pro Asn Ser Glu

800

785 790 795

Leu Leu Gln Arg Leu Lys Asn Cys Leu Ser Glu Val Glu Ala Cys Ile 805 810 815

Ala Gln Val Leu Gly Leu Val Ser Gly Gln Val Ala Arg Met Asp Thr 820 825 830

Pro Gln Leu Thr Leu Thr Glu Leu Arg Val Leu Leu Glu Gln Met Gly 835 840 845

Ser Leu Pro Cys Ala Met His Gln Ile Gly Asp Val Lys Asp Val Leu 850 855 860

Glu Gln Val Glu Ala Tyr Gln Ala Glu Ala Arg Glu Ala Leu Ala Thr 865 870 875 880

Leu Pro Ser Ser Pro Gly Leu Leu Arg Ser Leu Leu Glu Arg Gly Gln 885 890 895

Gln Leu Gly Val Glu Val Pro Glu Ala His Gln Leu Gln Gln Gln Val 900 905 910

Glu Gln Ala Gln Trp Leu Asp Glu Val Lys Gln Ala Leu Ala Pro Ser 915 920 925

Ala His Arg Gly Ser Leu Val Ile Met Gln Gly Leu Leu Val Met Gly 930 935 940

Ala Lys Ile Ala Ser Ser Pro Ser Val Asp Lys Ala Arg Ala Glu Leu 945 950 955 960

Gln Glu Leu Leu Thr Ile Ala Glu Arg Trp Glu Glu Lys Ala His Phe 965 970 975

Cys Leu Glu Ala Arg Gln Lys His Pro Pro Ala Thr Leu Glu Ala Ile 980 985 990

Ile Arg Glu Thr Glu Asn Ile Pro Val His Leu Pro Asn Ile Gln Ala 995 1000 1005

Leu Lys Glu Ala Leu Thr Lys Ala Gln Ala Trp Ile Ala Asp Val 1010 1015 1020

Asp Glu Ile Gln Asn Gly Asp His Tyr Pro Cys Leu Asp Asp Leu 1025 1030 1035

Glu	Gly 1040	Leu	Val	Ala	Val	Gly 1045	Arg	Asp	Leu	Pro	Val 1050	Gly	Leu	Glu
Glu	Leu 1055	Arg	Gln	Leu	Glu	Leu 1060	Gln	Val	Leu	Thr	Ala 1065	His	Ser	Trp
Arg	Glu 1070	Lys	Ala	Ser	Lys	Thr 1075	Phe	Leu	Lys	Lys	Asn 1080	Ser	Сув	Tyr
Thr	Leu 1085		Glu	Val	Leu	Cys 1090	Pro	Сув	Ala	Asp	Ala 1095	Gly	Ser	Asp
Ser	Thr 1100	Lys	Arg	Ser	Arg	Trp 1105		Glu	Lys	Ala	Leu 1110		Leu	Tyr
Gln	Cys 1115		Thr	Glu	Leu	Leu 1120		Leu	Ser	Ala	Gln 1125		Leu	Arg
Asp	Pro 1130	_	Ser	Val	Ile	Val 1135		Phe	Lys	Glu	Gly 1140		Gln	Lys
Glu	Lys 1145		Gly	Ile	Leu	Gln 1150		Arg	Arg	Thr	Asn 1155		Ala	Lys
Pro	Ser 1160		Leu	Ala	Pro	Ser 1165		Met	Ala	Ser	Ser 1170		Thr	Ser
Ile	Cys 1175		Cys	Gly	Gln	Val 1180		Ala	Gly	Val	Gly 1185		Leu	Gln
						Trp 1195							Ser	Val
Pro	His 1205		Leu	Thr	Ser	Pro 1210		Pro	Ser	Leu	Thr 1215		Ser	Pro
Leu	Leu 1220		Trp	Trp	Glu	Trp 1225		Thr	Lys	Phe	Leu 1230		Pro	Leu
Cys	Met 1235		Ser	Arg	Arg	Pro 1240		Leu	Glu	Thr	lle 1245		Ala	Leu
Leu	Val 1250		Leu	Gln	Arg	Leu 1255		Val	. Arg	Leu	Pro 1260		Gly	, Glu

Ala	Leu 1265	Gln	Cys	Leu	Thr	Glu 1270	Arg	Ala	Ile	Gly	Trp 1275	Gln	Asp	Arg
Ala	Arg 1280	Lys	Ala	Leu	Ala	Phe 1285	Glu	Asp	Val	Thr	Ala 1290	Leu	Leu	Arg
Gln	Leu 1295	Ala	Glu	Leu	Arg	Gln 1300		Leu	Gln	Ala	Lys 1305	Pro	Arg	Pro
Glu	Glu 1310	Ala	Ser	Val	Tyr	Thr 1315		Ala	Thr	Ala	Cys 1320	Asp	Pro	Ile
Arg	Glu 1325		Ser	Gly	Asn	Asn 1330		Ser	Lys	Val	Gln 1335		Leu	Leu
Glu	Asn 1340		Asp	Ser	Val	Thr 1345		Pro	Glu	Asn	Met 1350		Pro	Gly
Lys	Gly 1355		Asp	Leu	Glu	Leu 1360		Ser	Ser	Leu	Leu 1365		Gln	Leu
Thr	Gly 1370		Val	Leu	Glu	Leu 1375		Glu	Ala	Ile	Arg 1380		Pro	Leu
Glu	Glu 1385		Met	Met	Glu	Gly 1390	-	Leu	Leu	Glu	Val 1395		Leu	Asp
Glu	Asn 1400		Ser	Ile	Trp	Gln 1405		Leu	Gln	Ala	Gly 1410		Pro	Pro
						Thr 1420							Phe	Glu
His	Gln 1430	_	Ser	Arg	Thr	Arg 1435		Arg	Ala	Leu	Glu 1440		Arg	Arg
Arg	Arg 1445		Lys	Val	Asp	Gln 1450	-	Arg	Asn	Val	Glu 1455		Leu	Val
Gln	Gln 1460		Leu	Gln	Ser	Lys 1465		Ala	Arg	Ser	Ser 1470		lle	Met

Ser Gln Val Gly Arg Glu Glu Glu His Tyr Gln Glu Lys Ala Asp 1475 1480 1485 Arg Glu Asn Met Phe Leu Thr Pro Ser Thr Asp His Ser Pro Phe 1490 1495 1500

Leu Lys Gly Asn Gln Asn Ser Leu Gln His Lys Asp Ser Gly Ser 1505 1510 1515

Ser Ala Ala Cys Pro Ser Leu Met Pro Leu Leu Gln Leu Ser Tyr 1520 1525 1530

Ser Asp Glu Gln Gln Leu 1535

<210> 2546

<211> 274

<212> PRT

<213> Homo sapiens

<400> 2546

Met Gly Val Ser Ala Gln Asp Ile Phe Asn Ala Val Ile Lys Glu His 1 5 10 15

Pro Gly Leu Val Gln Arg Leu Pro Cys Val Trp Asn Val Gln Leu Ser 20 25 30

Asp His Thr Leu Ala Glu Arg Cys Tyr Ser Glu Ala Ser Asp Leu Lys
35 40 45

Val Ile His Trp Asn Ser Pro Lys Lys Leu Arg Val Lys Asn Lys His 50 55 60

Val Glu Phe Phe Arg Asn Phe Tyr Leu Thr Phe Leu Glu Tyr Asp Gly 65 70 75 80

Asn Leu Leu Arg Arg Glu Leu Phe Val Cys Pro Ser Gln Pro Pro 85 90 95

Gly Ala Glu Gln Leu Gln Gln Ala Leu Ala Gln Leu Asp Gly Glu Asp 100 105 110

Pro Cys Phe Glu Phe Arg Gln Gln Gln Leu Thr Val His Arg Val His 115 120 125

Val Thr Phe Leu Pro His Glu Pro Pro Pro Pro Arg Pro His Asp Val 130 135 140

Thr Leu Val Ala Gln Leu Ser Met Asp Arg Leu Gln Met Leu Glu Ala 145 150 155 160

Leu Cys Arq His Trp Pro Gly Pro Met Ser Leu Ala Leu Tyr Leu Thr 170

Asp Ala Glu Ala Gln Gln Phe Leu His Phe Val Glu Ala Ser Pro Val 180 185

Leu Ala Ala Arg Gln Asp Val Ala Tyr His Val Val Tyr Arg Glu Gly 200 195

Pro Leu Tyr Pro Val Asn Gln Leu Arg Asn Val Ala Leu Ala Gln Ala 210 215

Leu Thr Pro Tyr Val Phe Leu Ser Asp Ile Asp Phe Leu Pro Ala Tyr 225 230 235

Ser Leu Tyr Asp Tyr Leu Arg Glu Ala Arg Ala Gly Phe Asn Ser Ser 250 245

Ser Thr Cys Gly Cys Ala His Pro Ser His Gln Ala Arg Trp Pro Met 265 260

Val Val

<210> 2547 <211> 504 <212> PRT <213> Homo sapiens

<400> 2547

Met Val Ala Pro Gly Ser Val Thr Ser Arg Leu Gly Ser Val Phe Pro

Phe Leu Leu Val Leu Val Asp Leu Gln Tyr Glu Gly Ala Glu Cys Gly

Val Asn Ala Asp Val Glu Lys His Leu Glu Leu Gly Lys Lys Leu Leu

Ala Ala Gly Gln Leu Ala Asp Ala Leu Ser Gln Phe His Ala Ala Val

Asp Gly Asp Pro Asp Asn Tyr Ile Ala Tyr Tyr Arg Arg Ala Thr Val 70 75

Phe Leu Ala Met Gly Lys Ser Lys Ala Ala Leu Pro Asp Leu Thr Lys 85 90 95

- Val Ile Gln Leu Lys Met Asp Phe Thr Ala Ala Arg Leu Gln Arg Gly
 100 105 110
- His Leu Leu Lys Gln Gly Lys Leu Asp Glu Ala Glu Asp Asp Phe
 115 120 125
- Lys Lys Val Leu Lys Ser Asn Pro Ser Glu Asn Glu Glu Lys Glu Ala 130 135 140
- Gln Ser Gln Leu Ile Lys Ser Asp Glu Met Gln Arg Leu Arg Ser Gln 145 150 155 160
- Ala Leu Asn Ala Phe Gly Ser Gly Asp Tyr Thr Ala Ala Ile Ala Phe 165 170 175
- Leu Asp Lys Ile Leu Glu Val Cys Val Trp Asp Ala Glu Leu Arg Glu 180 185 190
- Leu Arg Ala Glu Cys Phe Ile Lys Glu Gly Glu Pro Arg Lys Ala Ile 195 200 205
- Ser Asp Leu Lys Ala Ala Ser Lys Leu Lys Asn Asp Asn Thr Glu Ala 210 215 220
- Phe Tyr Lys Ile Ser Thr Leu Tyr Tyr Gln Leu Gly Asp His Glu Leu 225 230 235 240
- Ser Leu Ser Glu Val Arg Glu Cys Leu Lys Leu Asp Gln Asp His Lys 245 250 255
- Arg Cys Phe Ala His Tyr Lys Gln Val Lys Lys Leu Asn Lys Leu Ile 260 265 270
- Glu Ser Ala Glu Glu Leu Ile Arg Asp Gly Arg Tyr Thr Asp Ala Thr 275 280 285
- Ser Lys Tyr Glu Ser Val Met Lys Thr Glu Pro Ser Ile Ala Glu Tyr 290 295 300
- Thr Val Arg Ser Lys Glu Arg Ile Cys His Cys Phe Ser Lys Asp Glu 305 310 315 320
- Lys Pro Val Glu Ala Ile Arg Val Cys Ser Glu Val Leu Gln Met Glu

330 335 325

Pro Asp Asn Val Asn Ala Leu Lys Asp Arg Ala Glu Ala Tyr Leu Ile 345

Glu Glu Met Tyr Asp Glu Ala Ile Gln Asp Tyr Glu Thr Ala Gln Glu

His Asn Glu Asn Asp Gln Gln Ile Arg Glu Gly Leu Glu Lys Ala Gln

Arg Leu Leu Lys Gln Ser Gln Lys Arg Asp Tyr Tyr Lys Ile Leu Gly 395

Val Lys Arg Asn Ala Lys Lys Gln Glu Ile Ile Lys Ala Tyr Arg Lys 405

Leu Ala Leu Gln Trp His Pro Asp Asn Phe Gln Asn Glu Glu Lys 420 425

Lys Lys Ala Glu Lys Lys Phe Ile Asp Ile Ala Ala Ala Lys Glu Val 440 435

Leu Ser Asp Pro Glu Met Arg Lys Lys Phe Asp Asp Gly Glu Asp Pro 455

Leu Asp Ala Glu Ser Gln Gln Gly Gly Gly Asn Pro Phe His Arg 475 470

Ser Trp Asn Ser Trp Gln Gly Phe Asn Pro Phe Ser Ser Gly Gly Pro 490 485

Phe Arg Phe Lys Phe His Phe Asn 500

<210> 2548 <211> 258 <212> PRT

<213> Homo sapiens

<400> 2548

Met Pro Pro Gln Gln Gly Asp Pro Ala Phe Pro Asp Arg Cys Glu Ala 15 5

Pro Pro Val Pro Pro Arg Arg Glu Arg Gly Gly Arg Gly Arg Gly 20 25 3.0

Pro Gly Glu Pro Gly Gly Arg Gly Arg Ala Gly Gly Ala Glu Gly Arg
35 40 45

Gly Val Lys Cys Val Leu Val Gly Asp Gly Ala Val Gly Lys Thr Ser 50 55 60

Leu Val Val Ser Tyr Thr Thr Asn Gly Tyr Pro Thr Glu Tyr Ile Pro 65 70 75 80

Thr Ala Phe Asp Asn Phe Ser Ala Val Val Ser Val Asp Gly Arg Pro 85 90 95

Val Arg Leu Gln Leu Cys Asp Thr Ala Gly Gln Asp Glu Phe Asp Lys
100 105 110

Leu Arg Pro Leu Cys Tyr Thr Asn Thr Asp Ile Phe Leu Leu Cys Phe 115 120 125

Ser Val Val Ser Pro Ser Ser Phe Gln Asn Val Ser Glu Lys Trp Val 130 135 140

Pro Glu Ile Arg Cys His Cys Pro Lys Ala Pro Ile Ile Leu Val Gly
145 150 155 160

Thr Gln Ser Asp Leu Arg Glu Asp Val Lys Val Leu Ile Glu Leu Asp 165 170 175

Lys Cys Lys Glu Lys Pro Val Pro Glu Glu Ala Ala Lys Leu Cys Ala 180 185 190

Glu Glu Ile Lys Ala Ala Ser Tyr Ile Glu Cys Ser Ala Leu Thr Gln 195 200 205

Lys Asn Leu Lys Glu Val Phe Asp Ala Ala Ile Val Ala Gly Ile Gln 210 215 220

Tyr Ser Asp Thr Gln Gln Pro Lys Lys Ser Lys Ser Arg Thr Pro 225 230 235 240

Asp Lys Met Lys Asn Leu Ser Lys Ser Trp Trp Lys Lys Tyr Cys Cys 245 250 255

Phe Val

- <210> 2549
- <211> 394
- <212> PRT
- <213> Homo sapiens
- <400> 2549
- Met Phe Lys Lys Ser His Val Arg Asn His Leu Arg Thr His Thr 1 5 10 15
- Gly Glu Arg Pro Phe Pro Cys Pro Asp Cys Ser Lys Pro Phe Asn Ser 20 25 30
- Pro Ala Asn Leu Ala Arg His Arg Leu Thr His Thr Gly Glu Arg Pro
 35 40 45
- Tyr Arg Cys Gly Asp Cys Gly Lys Ala Phe Thr Gln Ser Ser Thr Leu 50 55 60
- Arg Gln His Arg Leu Val His Ala Gln His Phe Pro Tyr Arg Cys Gln 65 70 75 80
- Glu Cys Gly Val Arg Phe His Arg Pro Tyr Arg Leu Leu Met His Arg 85 90 95
- Tyr His His Thr Gly Glu Tyr Pro Tyr Lys Cys Arg Glu Cys Pro Arg 100 105 110
- Ser Phe Leu Leu Arg Arg Leu Leu Glu Val His Gln Leu Val Val His 115 120 125
- Ala Gly Arg Gln Pro His Arg Cys Pro Ser Cys Gly Ala Ala Phe Pro 130 135 140
- Ser Ser Leu Arg Leu Arg Glu His Arg Cys Ala Ala Ala Ala Ala Gln 145 150 155 160
- Ala Pro Arg Arg Phe Glu Cys Gly Thr Cys Gly Lys Lys Val Gly Ser 165 170 175
- Ala Ala Arg Leu Gln Ala His Glu Ala Ala His Ala Ala Ala Gly Pro 180 185 190
- Gly Glu Val Leu Ala Lys Glu Pro Pro Ala Pro Arg Ala Pro Arg Ala 195 200 205
- Thr Arg Ala Pro Val Ala Ser Pro Ala Ala Leu Gly Ser Thr Ala Thr 210 215 220

Ala Ser Pro Ala Ala Pro Ala Arg Arg Gly Leu Glu Cys Ser Glu 225 230 235 240

Cys Lys Lys Leu Phe Ser Thr Glu Thr Ser Leu Gln Val His Arg Arg 245 250 255

Ile His Thr Gly Glu Arg Pro Tyr Pro Cys Pro Asp Cys Gly Lys Ala 260 265 270

Phe Arg Gln Ser Thr His Leu Lys Asp His Arg Arg Leu His Thr Gly 275 280 285

Glu Arg Pro Phe Ala Cys Glu Val Cys Gly Lys Ala Phe Ala Ile Ser 290 295 300

Met Arg Leu Ala Glu His Arg Arg Ile His Thr Gly Glu Arg Pro Tyr 305 310 315 320

Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg Ser Phe Ser Asn Leu Trp 325 330 335

Lys His Arg Lys Thr His Gln Gln His Gln Ala Ala Val Arg Gln 340 345 350

Gln Leu Ala Glu Ala Glu Ala Ala Val Gly Leu Ala Val Met Glu Thr 355 360 365

Ala Val Glu Ala Leu Pro Leu Val Glu Ala Ile Glu Ile Tyr Pro Leu 370 375 380

Ala Glu Ala Glu Gly Val Gln Ile Ser Gly 385 390

<210> 2550

<211> 415

<212> PRT

<213> Homo sapiens

<400> 2550

Met Glu Asp Leu Cys Val Ala Asn Thr Leu Phe Ala Leu Asn Leu Phe 1 5 10 15

Lys His Leu Ala Lys Ala Ser Pro Thr Gln Asn Leu Phe Leu Ser Pro 20 25 30

Trp Ser Ile Ser Ser Thr Met Ala Met Val Tyr Met Gly Ser Arg Gly 35 40 45

Ser Thr Glu Asp Gln Met Ala Lys Val Leu Gln Phe Asn Glu Val Gly 50 55 60

Ala Asn Ala Val Thr Pro Met Thr Pro Glu Asn Phe Thr Ser Cys Gly 65 70 75 80

Phe Met Gln Gln Ile Gln Lys Gly Ser Tyr Pro Asp Ala Ile Leu Gln 85 90 95

Ala Gln Ala Ala Asp Lys Ile His Ser Ser Phe Arg Ser Leu Ser Ser 100 105 110

Ala Ile Asn Ala Ser Thr Gly Asn Tyr Leu Leu Glu Ser Val Asn Lys 115 120 125

Leu Phe Gly Glu Lys Ser Ala Ser Phe Arg Glu Glu Tyr Ile Arg Leu 130 135 140

Cys Gln Lys Tyr Tyr Ser Ser Glu Pro Gln Ala Val Asp Phe Leu Glu 145 150 155 160

Cys Ala Glu Glu Ala Arg Lys Lys Ile Asn Ser Trp Val Lys Thr Gln 165 170 175

Thr Lys Gly Lys Ile Pro Asn Leu Leu Pro Glu Gly Ser Val Asp Gly 180 185 190

Asp Thr Arg Met Val Leu Val Asn Ala Val Tyr Phe Lys Gly Lys Trp 195 200 205

Lys Thr Pro Phe Glu Lys Lys Leu Asn Gly Leu Tyr Pro Phe Arg Val 210 215 220

Asn Ser Ala Gln Arg Thr Pro Val Gln Met Met Tyr Leu Arg Glu Lys 225 230 235 240

Leu Asn Ile Gly Tyr Ile Glu Asp Leu Lys Ala Gln Ile Leu Glu Leu 245 250 255

Pro Tyr Ala Gly Asp Val Ser Met Phe Leu Leu Leu Pro Asp Glu Ile 260 265 270

Ala Asp Val Ser Thr Gly Leu Glu Leu Leu Glu Ser Glu Ile Thr Tyr

280 285 275

Asp Lys Leu Asn Lys Trp Thr Ser Lys Asp Lys Met Ala Glu Asp Glu 295 290

Val Glu Val Tyr Ile Pro Gln Phe Lys Leu Glu Glu His Tyr Glu Leu 315

Arg Ser Ile Leu Arg Ser Met Gly Met Glu Asp Ala Phe Asn Lys Gly 330

Arg Ala Asn Phe Ser Gly Met Ser Glu Arg Asn Asp Leu Phe Leu Ser

Glu Val Phe His Gln Ala Met Val Asp Val Asn Glu Glu Gly Thr Glu

Ala Ala Ala Gly Thr Gly Gly Val Met Thr Gly Arg Thr Gly His Gly 375

Gly Pro Gln Phe Val Ala Asp His Pro Phe Leu Phe Leu Ile Met His 390

Lys Ile Thr Asn Cys Ile Leu Phe Phe Gly Arg Phe Ser Ser Pro 410 405

<210> 2551

<211> 434 <212> PRT <213> Homo sapiens

<400> 2551

Met Ser Ile Leu Lys Ile His Ala Arg Glu Ile Phe Asp Ser Arg Gly 10 15

Asn Pro Thr Val Glu Val Asp Leu Phe Thr Ser Lys Gly Leu Phe Arg 20 25 30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu 35

Leu Arg Asp Asn Asp Lys Thr Arg Tyr Met Gly Lys Gly Val Ser Lys 50 55

Ala Val Glu His Ile Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys 65 70 80

Lys Leu Asn Val Thr Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu 85 90 95

- Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu 100 105 110
- Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val
- Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile 130 135 140
- Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly 145 150 155 160
- Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala 165 170 175
- Asn Phe Arg Glu Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu 180 185 190
- Lys Asn Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly
 195 200 205
- Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu 210 215 220
- Glu Leu Leu Lys Thr Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val 225 230 235 240
- Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys 245 250 255
- Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser 260 265 270
- Pro Asp Gln Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro 275 280 285
- Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp 290 295 300
- Gln Lys Phe Thr Ala Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu 305 310 315 320

Thr Val Thr Asn Pro Lys Arg Ile Ala Lys Ala Val Asn Glu Lys Ser 325 330 335

Cys Asn Cys Leu Leu Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu 340 345 350

Ser Leu Gln Ala Cys Lys Leu Ala Gln Ala Asn Gly Trp Gly Val Met 355 360 365

Val Ser His Arg Ser Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu 370 375 380

Val Val Gly Leu Cys Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg 385 390 395 400

Ser Glu Arg Leu Ala Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu 405 410 415

Leu Gly Ser Lys Ala Lys Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu 420 425 430

Ala Lys

<210> 2552

<211> 281

<212> PRT

<213> Homo sapiens

<400> 2552

Met Glu Val His Gln Gln Asn Ala Leu Phe Gln Tyr Phe Ala Asp Thr
1 5 10 15

Leu Thr Ala Val Val Gln Asn Ala Lys Lys Asn Gly Arg Tyr Asp Met 20 25 30

Gly Ile Leu Asp Leu Gly Ser Gly Asp Glu Lys Val Arg Lys Ser Asp 35 40 45

Val Lys Lys Phe Leu Thr Pro Gly Tyr Ser Thr Ser Gly His Val Glu 50 55 60

Leu Tyr Thr Ile Ser Val Glu Arg Gly Met Ser Trp Glu Glu Ala Thr 65 70 75 80

Lys Ile Trp Ala Glu Leu Thr Gly Pro Asp Asp Gly Phe Tyr Leu Ser 85 90 95

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Leu Gln Ile Arg Asn Asn Lys Lys Thr Ala Ile Leu Val Lys Glu Val . 105 100

Asn Pro Lys Lys Leu Phe Leu Val Tyr Arg Pro Asn Thr Gly Lys 120

Gln Leu Lys Leu Glu Ile Tyr Ala Asp Leu Lys Lys Lys Tyr Lys Lys 135

Val Val Ser Asp Asp Ala Leu Met His Trp Leu Asp Gln Tyr Asn Ser 145 150

Ser Ala Asp Thr Cys Thr His Ala Tyr Trp Arg Gly Asn Cys Lys 165

Ala Ser Leu Gly Leu Val Cys Glu Ile Gly Leu Arg Cys Arg Thr Tyr 180 185

Tyr Val Leu Cys Gly Ser Val Leu Ser Val Trp Thr Lys Val Glu Gly 200 195

Val Leu Ala Ser Val Ser Gly Thr Asn Val Lys Met Gln Ile Val Arg 210 215

Leu Arg Thr Glu Asp Gly Gln Arg Ile Val Gly Leu Ile Ile Pro Ala 225 235 230

Asn Cys Val Ser Pro Leu Val Asn Leu Leu Ser Thr Ser Asp Gln Ser 250 245

Gln Gln Leu Ala Val Gln Gln Lys Gln Leu Trp Gln Gln His His Pro 260 265

Gln Ser Ile Thr Asn Leu Ser Asn Ala 275 280

<210> 2553

<211> 176 <212> PRT

<213> Homo sapiens

<400> 2553

Met Lys Ala Ser Gly Thr Leu Arg Glu Tyr Lys Val Val Gly Arg Cys

Leu Pro Thr Pro Lys Cys His Thr Pro Pro Leu Tyr Arg Met Arg Ile 25

Phe Ala Pro Asn His Val Val Ala Lys Ser Arg Phe Trp Tyr Phe Val 40

Ser Gln Leu Lys Lys Met Lys Lys Ser Ser Gly Glu Ile Val Tyr Cys

Gly Gln Val Phe Glu Lys Ser Pro Leu Arg Val Lys Asn Phe Gly Ile 70

Trp Leu Arg Tyr Asp Ser Arg Ser Gly Thr His Asn Met Tyr Arg Glu 85

Tyr Arg Asp Leu Thr Thr Ala Gly Ala Val Thr Gln Cys Tyr Arg Asp 105 100

Met Gly Ala Arg His Arg Ala Arg Ala His Ser Ile Gln Ile Met Lys 120 115

Val Glu Glu Ile Ala Ala Ser Lys Cys Arg Arg Pro Ala Val Lys Gln 135 130

Phe His Asp Ser Lys Ile Lys Phe Pro Leu Pro His Arg Val Leu Arg 155 145 150

Arg Gln His Lys Pro Arg Phe Thr Thr Lys Arg Pro Asn Thr Phe Phe 170 165

<210> 2554

<211> 363 <212> PRT

<213> Homo sapiens

<400> 2554

Met Ala Leu His Cys Gln Glu Phe Gly Gly Lys Asn Tyr Glu Ala Ser

Met Ser His Val Asp Lys Phe Val Lys Glu Leu Leu Ser Ser Asp Ala

Met Lys Glu Tyr Asn Arg Ala Arg Val Tyr Leu Asp Glu Asn Tyr Lys

Ser Gln Glu His Phe Thr Ala Leu Gly Ser Phe Tyr Phe Leu His Glu 60 50

Ser Leu Lys Asn Ile Tyr Gln Phe Asp Phe Lys Ala Lys Lys Tyr Arg Lys Val Ala Gly Lys Glu Ile Tyr Ser Asp Thr Leu Glu Ser Thr Pro Met Leu Glu Lys Glu Lys Phe Arg Arg Leu Leu Pro Arg Val Gln Met Val Lys Lys Arg Leu His Pro Asp Glu Val Val Ile Ala Asp Cys Ala Phe Asp Leu Val Asn Ile His Leu Phe His Asp Ala Ser Asn Leu Val Ala Trp Glu Thr Ser Pro Ser Val Tyr Ser Gly Ile Arg His Lys Ala Leu Gly Tyr Val Leu Asp Arg Ile Ile Asp Gln Arg Phe Glu Lys Val Ser Tyr Phe Val Phe Gly Asp Phe Asn Phe Arg Leu Asp Ser Lys Ser Val Val Glu Thr Leu Ser Ala Lys Pro Pro Met Gln Thr Val Arg Ala Ala Asp Thr Asn Glu Val Val Lys Leu Ile Phe Arg Glu Ser Asp Asn Asp Arg Lys Val Met Leu Gln Leu Glu'Lys Lys Leu Phe Asp Tyr Phe Asn Gln Glu Val Phe Arg Asp Asn Asn Gly Thr Ala Leu Leu Glu Phe Asp Lys Glu Leu Ser Val Phe Lys Asp Arg Leu Tyr Glu Leu Asp Ile Ser Phe Pro Pro Ser Tyr Pro Tyr Ser Glu Asp Ala Arg Gln Gly Glu Gln Tyr Met Asn Thr Arg Cys Pro Ala Trp Cys Asp Arg Ile Leu Met

Ser Pro Ser Ala Lys Glu Leu Val Leu Arg Ser Glu Ser Glu Lys 305 310 315 320

Val Val Thr Tyr Asp His Ile Gly Pro Asn Val Cys Met Gly Asp His 325 330 335

Lys Pro Val Phe Leu Ala Phe Arg Ile Met Pro Gly Ala Gly Lys Pro 340 345 350

His Ala His Val His Lys Cys Cys Val Val Gln 355 360

<210> 2555

<211> 56

<212> PRT

<213> Homo sapiens

<400> 2555

Met Gly His Gln Gln Leu Tyr Trp Ser His Pro Arg Lys Phe Gly Gln 1 5 10 15

Gly Ser Arg Ser Cys Arg Val Cys Ser Asn Arg His Gly Leu Ile Arg 20 25 30

Lys Tyr Gly Leu Asn Met Cys Arg Gln Cys Phe Arg Gln Tyr Ala Lys 35 40 45

Asp Ile Gly Phe Ile Lys Leu Asp 50 55

<210> 2556

<211> 520

<212> PRT

<213> Homo sapiens

<400> 2556

Met Val Thr Ser Ser Phe Pro Ile Ser Val Ala Val Phe Ala Leu Ile 1 5 10 15

Thr Leu Gln Val Gly Thr Gln Asp Ser Phe Ile Ala Ala Val Tyr Glu 20 25 30

His Ala Val Ile Leu Pro Asn Lys Thr Glu Thr Pro Val Ser Gln Glu 35 40 45

Asp Ala Leu Asn Leu Met Asn Glu Asn Ile Asp Ile Leu Glu Thr Ala 50 55 60

Ile Lys Gln Ala Ala Glu Gln Gly Ala Arg Ile Ile Val Thr Pro Glu 65 70 75 80

- Asp Ala Leu Tyr Gly Trp Lys Phe Thr Arg Glu Thr Val Phe Pro Tyr 85 90 95
- Leu Glu Asp Ile Pro Asp Pro Gln Val Asn Trp Ile Pro Cys Gln Asp
 100 110
- Pro His Arg Phe Gly His Thr Pro Val Gln Ala Arg Leu Ser Cys Leu 115 120 125
- Ala Lys Asp Asn Ser Ile Tyr Val Leu Ala Asn Leu Gly Asp Lys Lys 130 135 140
- Pro Cys Asn Ser Arg Asp Ser Thr Cys Pro Pro Asn Gly Tyr Phe Gln 145 150 155 160
- Tyr Asn Thr Asn Val Val Tyr Asn Thr Glu Gly Lys Leu Val Ala Arg 165 170 175
- Tyr His Lys Tyr His Leu Tyr Ser Glu Pro Gln Phe Asn Val Pro Glu 180 185 190
- Lys Pro Glu Leu Val Thr Phe Asn Thr Ala Phe Gly Arg Phe Gly Ile 195 200 205
- Phe Thr Cys Phe Asp Ile Phe Phe Tyr Asp Pro Gly Val Thr Leu Val 210 215 220
- Lys Asp Phe His Val Asp Thr Ile Leu Phe Pro Thr Ala Trp Met Asn 225 230 235 240
- Val Leu Pro Leu Leu Thr Ala Ile Glu Phe His Ser Ala Trp Ala Met 245 250 255
- Gly Met Gly Val Asn Leu Leu Val Ala Asn Thr His His Val Ser Leu 260 265 270
- Asn Met Thr Gly Ser Gly Ile Tyr Ala Pro Asn Gly Pro Lys Val Tyr 275 280 285
- His Tyr Asp Met Lys Thr Glu Leu Gly Lys Leu Leu Leu Ser Glu Val 290 295 300

Asp Ser His Pro Leu Ser Ser Leu Ala Tyr Pro Thr Ala Val Asn Trp 305 310 315 320

Asn Ala Tyr Ala Thr Thr Ile Lys Pro Phe Pro Val Gln Lys Asn Thr 325 330 335

Phe Arg Gly Phe Ile Ser Arg Asp Gly Phe Asn Phe Thr Glu Leu Phe 340 345 350

Glu Asn Ala Gly Asn Leu Thr Val Cys Gln Lys Glu Leu Cys Cys His 355 360 365

Leu Ser Tyr Arg Met Leu Gln Lys Glu Glu Asn Glu Val Tyr Val Leu 370 375 380

Gly Ala Phe Thr Gly Leu His Gly Arg Arg Arg Glu Tyr Trp Gln 385 390 395 400

Val Cys Thr Met Leu Lys Cys Lys Thr Thr Asn Leu Thr Thr Cys Gly
405 410 415

Arg Pro Val Glu Thr Ala Ser Thr Arg Phe Glu Met Phe Ser Leu Ser 420 425 430

Gly Thr Phe Gly Thr Glu Tyr Val Phe Pro Glu Val Leu Leu Thr Glu 435 440 445

Ile His Leu Ser Pro Gly Lys Phe Glu Val Leu Lys Asp Gly Arg Leu 450 455 460

Val Asn Lys Asn Gly Ser Ser Gly Pro Ile Leu Thr Val Ser Leu Phe 465 470 475 480

Gly Arg Trp Tyr Thr Lys Asp Ser Leu Tyr Ser Ser Cys Gly Thr Ser 485 490 495

Asn Ser Ala Ile Thr Tyr Leu Leu Ile Phe Ile Leu Leu Met Ile Ile
500 505 510

Ala Leu Gln Asn Ile Val Met Leu 515 520

<210> 2557

<211> 564

<212> PRT

<213> Homo sapiens

<400> 2557

Met Ser Ala Gly Ser Ala Thr His Pro Gly Ala Gly Gly Arg Arg Ser 1 5 10 15

Lys Trp Asp Gln Pro Ala Pro Ala Pro Leu Leu Phe Leu Pro Pro Ala 20 25 30

Ala Pro Gly Gly Glu Val Thr Ser Ser Gly Gly Ser Pro Gly Gly Thr 35 40 45

Thr Ala Ala Pro Ser Gly Ala Leu Asp Ala Ala Ala Ala Val Ala Ala 50 55 60

Lys Ile Asn Ala Met Leu Met Ala Lys Gly Lys Leu Lys Pro Thr Gln 65 70 75 80

Asn Ala Ser Glu Lys Leu Gln Ala Pro Gly Lys Gly Leu Thr Ser Asn 85 90 95

Lys Ser Lys Asp Asp Leu Val Val Ala Glu Val Glu Ile Asn Asp Val 100 105 110

Pro Leu Thr Cys Arg Asn Leu Leu Thr Arg Gly Gln Thr Gln Asp Glu
115 120 125

Ile Ser Arg Leu Ser Gly Ala Ala Val Ser Thr Arg Gly Arg Phe Met 130 135 140

Thr Thr Glu Glu Lys Ala Lys Val Gly Pro Gly Asp Arg Pro Leu Tyr
145 150 155 160

Leu His Val Gln Gly Gln Thr Arg Glu Leu Val Asp Arg Ala Val Asn 165 170 175

Arg Ile Lys Glu Ile Ile Thr Asn Gly Val Val Lys Ala Ala Thr Gly 180 185 190

Thr Ser Pro Thr Phe Asn Gly Ala Thr Val Thr Val Tyr His Gln Pro 195 200 205

Ala Pro Ile Ala Gln Leu Ser Pro Ala Val Ser Gln Lys Pro Pro Phe 210 215 220

Gln Ser Gly Met His Tyr Val Gln Asp Lys Leu Phe Val Gly Leu Glu 225 230 235 240 His Ala Val Pro Thr Phe Asn Val Lys Glu Lys Val Glu Gly Pro Gly 245 250 255

- Cys Ser Tyr Leu Gln His Ile Gln Ile Glu Thr Gly Ala Lys Val Phe 260 265 270
- Leu Arg Gly Lys Gly Ser Gly Cys Ile Glu Pro Ala Ser Gly Arg Glu 275 280 285
- Ala Phe Glu Pro Met Tyr Ile Tyr Ile Ser His Pro Lys Pro Glu Gly 290 295 300
- Leu Ala Ala Ala Lys Lys Leu Cys Glu Asn Leu Leu Gln Thr Val His 305 310 315 320
- Ala Glu Tyr Ser Arg Phe Val Asn Gln Ile Asn Thr Ala Val Pro Leu 325 330 335
- Pro Gly Tyr Thr Gln Pro Ser Ala Ile Ser Ser Val Pro Pro Gln Pro 340 345 350
- Pro Tyr Tyr Pro Ser Asn Gly Tyr Gln Ser Gly Tyr Pro Val Val Pro 355 360 365
- Pro Pro Gln Gln Pro Val Gln Pro Pro Tyr Gly Val Pro Ser Ile Val 370 380
- Pro Pro Ala Val Ser Leu Ala Pro Gly Val Leu Pro Ala Leu Pro Thr 385 390 395 400
- Gly Val Pro Pro Val Pro Thr Gln Tyr Pro Ile Thr Gln Val Gln Pro 405 410 415
- Pro Ala Ser Thr Gly Gln Ser Pro Met Gly Gly Pro Phe Ile Pro Ala 420 425 430
- Ala Pro Val Lys Thr Ala Leu Pro Ala Gly Pro Gln Pro Gln Pro Gln 435
- Pro Gln Pro Pro Leu Pro Ser Gln Pro Gln Ala Gln Lys Arg Arg Phe 450 455 460
- Thr Glu Glu Leu Pro Asp Glu Arg Glu Ser Gly Leu Leu Gly Tyr Gln 465 470 475 480

His Gly Pro Ile His Met Thr Asn Leu Gly Thr Gly Phe Ser Ser Gln
485 490 495

Asn Glu Ile Glu Gly Ala Gly Ser Lys Pro Ala Ser Ser Gly Lys 500 505 510

Glu Arg Glu Arg Asp Arg Gln Leu Met Pro Pro Pro Ala Phe Pro Val 515 520 525

Thr Gly Ile Lys Thr Glu Ser Asp Glu Arg Asn Gly Ser Gly Thr Leu 530 535 540

Thr Gly Ser His Gly Glu Cys Asp Ile Ala Gly Gly Thr Gly Glu Trp 545 550 555 560

Leu Arg Leu Val

<210> 2558

<211> 462

<212> PRT

<213> Homo sapiens

<400> 2558

Met Gly Lys Glu Lys Thr His Ile Asn Ile Val Val Ile Gly His Val 1 5 10 15

Asp Ser Gly Lys Ser Thr Thr Thr Gly His Leu Ile Tyr Lys Cys Gly 20 25 30

Gly Ile Asp Lys Arg Thr Ile Glu Lys Phe Glu Lys Glu Ala Ala Glu 35 40 45

Met Gly Lys Gly Ser Phe Lys Tyr Ala Trp Val Leu Asp Lys Leu Lys 50 55 60

Ala Glu Arg Glu Arg Gly Ile Thr Ile Asp Ile Ser Leu Trp Lys Phe 65 70 75 80

Glu Thr Ser Lys Tyr Tyr Val Thr Ile Ile Asp Ala Pro Gly His Arg 85 90 95

Asp Phe Ile Lys Asn Met Ile Thr Gly Thr Ser Gln Ala Asp Cys Ala 100 105 110

Val Leu Ile Val Ala Ala Gly Val Gly Glu Phe Glu Ala Gly Ile Ser

115 120 125

Lys Asn Gly Gln Thr Arg Glu His Ala Leu Leu Ala Tyr Thr Leu Gly
130 135 140

Val Lys Gln Leu Ile Val Gly Val Asn Lys Met Asp Ser Thr Glu Pro 145 150 155 160

Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile Val Lys Glu Val Ser Thr 165 170 175

Tyr Ile Lys Lys Ile Gly Tyr Asn Pro Asp Thr Val Ala Phe Val Pro 180 185 190

Ile Ser Gly Trp Asn Gly Asp Asn Met Leu Glu Pro Ser Ala Asn Met 195 200 205

Pro Trp Phe Lys Gly Trp Lys Val Thr Arg Lys Asp Gly Asn Ala Ser 210 215 220

Gly Thr Thr Leu Leu Glu Ala Leu Asp Cys Ile Leu Pro Pro Thr Arg 225 230 235 240

Pro Thr Asp Lys Pro Leu Arg Leu Pro Leu Gln Asp Val Tyr Lys Ile 245 250 255

Gly Gly Ile Gly Thr Val Pro Val Gly Arg Val Glu Thr Gly Val Leu 260 265 270

Lys Pro Gly Met Val Val Thr Phe Ala Pro Val Asn Val Thr Thr Glu 275 280 285

Val Lys Ser Val Glu Met His His Glu Ala Leu Ser Glu Ala Leu Pro 290 295 300

Gly Asp Asn Val Gly Phe Asn Val Lys Asn Val Ser Val Lys Asp Val 305 310 315 320

Arg Arg Gly Asn Val Ala Gly Asp Ser Lys Asn Asp Pro Pro Met Glu 325 330 335

Ala Ala Gly Phe Thr Ala Gln Val Ile Ile Leu Asn His Pro Gly Gln 340 345 350

Ile Ser Ala Gly Tyr Ala Pro Val Leu Asp Cys His Thr Ala His Ile 355 360 365

Ala Cys Lys Phe Ala Glu Leu Lys Glu Lys Ile Asp Arg Arg Ser Gly 370 375 380

Lys Lys Leu Glu Asp Gly Pro Lys Phe Leu Lys Ser Gly Asp Ala Ala 385 390 395 400

Ile Val Asp Met Val Pro Gly Lys Pro Met Cys Val Glu Ser Phe Ser 405 410 415

Asp Tyr Pro Pro Leu Gly Arg Phe Ala Val Arg Asp Met Arg Gln Thr 420 425 430

Val Ala Val Gly Val Ile Lys Ala Val Asp Lys Lys Ala Ala Gly Ala 435 440 445

Gly Lys Val Thr Lys Ser Ala Gln Lys Ala Gln Lys Ala Lys 450 455 460

<210> 2559

<211> 394

<212> PRT

<213> Homo sapiens

<400> 2559

Met Ser Gly Glu Asp Glu Gln Glu Gln Thr Ile Ala Glu Asp Leu

1 10 15

Val Val Thr Lys Tyr Lys Met Gly Gly Asp Ile Ala Asn Arg Val Leu 20 25 30

Arg Ser Leu Val Glu Ala Ser Ser Ser Gly Val Ser Val Leu Ser Leu 35 40 45

Cys Glu Lys Gly Asp Ala Met Ile Met Glu Glu Thr Gly Lys Ile Phe 50 55 60

Lys Lys Glu Lys Glu Met Lys Lys Gly Ile Ala Phe Pro Thr Ser Ile 65 70 75 80

Ser Val Asn Asn Cys Val Cys His Phe Ser Pro Leu Lys Ser Asp Gln 85 90 95

Asp Tyr Ile Leu Lys Glu Gly Asp Leu Val Lys Ile Asp Leu Gly Val 100 105 110

His Val Asp Gly Phe Ile Ala Asn Val Ala His Thr Phe Val Val Asp 115 120 125

- Val Ala Gln Gly Thr Gln Val Thr Gly Arg Lys Ala Asp Val Ile Lys
 130 135 140
- Ala Ala His Leu Cys Ala Glu Ala Ala Leu Arg Leu Val Lys Pro Gly
 145 150 155 160
- Asn Gln Asn Thr Gln Val Thr Glu Ala Trp Asn Lys Val Ala His Ser 165 170 175
- Phe Asn Cys Thr Pro Ile Glu Gly Met Leu Ser His Gln Leu Lys Gln 180 185 190
- His Val Ile Asp Gly Glu Lys Thr Ile Ile Gln Asn Pro Thr Asp Gln 195 200 205
- Gln Lys Lys Asp His Glu Lys Ala Glu Phe Glu Val His Glu Val Tyr 210 215 220
- Ala Val Asp Val Leu Val Ser Ser Gly Glu Gly Lys Ala Lys Asp Ala 225 230 235 240
- Gly Gln Arg Thr Thr Ile Tyr Lys Arg Asp Pro Ser Lys Gln Tyr Gly
 245 250 255
- Leu Lys Met Lys Thr Ser Arg Ala Phe Phe Ser Glu Val Glu Arg Arg 260 265 270
- Phe Asp Ala Met Pro Phe Thr Leu Arg Ala Phe Glu Asp Glu Lys Lys 275 280 285
- Ala Arg Met Gly Val Val Glu Cys Ala Lys His Glu Leu Leu Gln Pro 290 295 300
- Phe Asn Val Leu Tyr Glu Lys Glu Gly Glu Phe Val Ala Gln Phe Lys 305 310 315 320
- Phe Thr Val Leu Met Pro Asn Gly Pro Met Arg Ile Thr Ser Gly 325 330 335
- Pro Phe Glu Pro Asp Leu Tyr Lys Ser Glu Met Glu Val Gln Asp Ala 340 345 350
- Glu Leu Lys Ala Leu Leu Gln Ser Ser Ala Ser Arg Lys Thr Gln Lys

947

355 360 365

Lys Lys Lys Lys Lys Ala Ser Lys Thr Ala Glu Asn Pro Thr Ser Gly 370 375 380

Glu Thr Leu Glu Glu Asn Glu Ala Gly Asp 385

<210> 2560

<211> 335

<212> PRT

<213> Homo sapiens

<400> 2560

Met Gly Lys Val Lys Val Gly Val Asn Gly Phe Gly Arg Ile Gly Arg
1 5 10 15

Leu Val Thr Arg Ala Ala Phe Asn Ser Gly Lys Val Asp Ile Val Ala 20 25 30

Ile Asn Asp Pro Phe Ile Asp Leu Asn Tyr Met Val Tyr Met Phe Gln 35 40 45

Tyr Asp Ser Thr His Gly Lys Phe His Gly Thr Val Lys Ala Glu Asn 50 55 60

Gly Lys Leu Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg
65 70 75 80

Asp Pro Ser Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val 85 90 95

Glu Ser Thr Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu 100 105 110

Gln Gly Gly Ala Lys Arg Val Ile Ile Ser Ala Pro Ser Ala Asp Ala 115 120 125

Pro Met Phe Val Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu 130 135 140

Lys Ile Ile Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu 145 150 155 160

Ala Lys Val Ile His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr 165 170 175

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Thr Val His Ala Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser 185 180

- Gly Lys Leu Trp Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro 200
- Ala Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu 215
- Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val
- Ser Val Val Asp Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp 245
- Asp Ile Lys Lys Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly 260
- Ile Leu Gly Tyr Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser 280 275
- Asp Thr His Ser Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn 295
- Asp His Phe Val Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr 315 310 305
- Ser Asn Arg Val Val Asp Leu Met Ala His Met Ala Ser Lys Glu 330 325

- <210> 2561 <211> 1912 <212> PRT <213> Homo sapiens
- <400> 2561
- Met Ala Ser Gly Leu Gly Ser Pro Ser Pro Cys Ser Ala Gly Ser Glu 5 10
- Glu Glu Asp Met Asp Ala Leu Leu Asn Asn Ser Leu Pro Pro Pro His 25 30 20
- Pro Glu Asn Glu Glu Asp Pro Glu Glu Asp Leu Ser Glu Thr Glu Thr 40 45 35
- Pro Lys Leu Lys Lys Lys Lys Pro Lys Lys Pro Arg Asp Pro Lys

50 55 60 '

Ile Pro Lys Ser Lys Arg Gln Lys Lys Glu Arg Met Leu Leu Cys Arg
70 75 80

Gln Leu Gly Asp Ser Ser Gly Glu Gly Pro Glu Phe Val Glu Glu Glu 85 90 95

Glu Glu Val Ala Leu Arg Ser Asp Ser Glu Gly Ser Asp Tyr Thr Pro 100 105 110

Gly Lys Lys Lys Lys Lys Leu Gly Pro Lys Lys Glu Lys Lys Ser 115 120 125

Lys Ser Lys Arg Lys Glu Glu Glu Glu Glu Asp Asp Asp Asp Asp Asp 130 135 140

Ser Lys Glu Pro Lys Ser Ser Ala Gln Leu Leu Glu Asp Trp Gly Met 145 150 155 160

Glu Asp Ile Asp His Val Phe Ser Glu Glu Asp Tyr Arg Thr Leu Thr 165 170 175

Asn Tyr Lys Ala Phe Ser Gln Phe Val Arg Pro Leu Ile Ala Ala Lys 180 185 190

Asn Pro Lys Ile Ala Val Ser Lys Met Met Met Val Leu Gly Ala Lys 195 200 205

Trp Arg Glu Phe Ser Thr Asn Asn Pro Phe Lys Gly Ser Ser Gly Ala 210 215 220

Ser Val Ala Ala Ala Ala Ala Ala Val Ala Val Val Glu Ser Met 225 230 235 240

Val Thr Ala Thr Glu Val Ala Pro Pro Pro Pro Val Glu Val Pro 245 250 255

Ile Arg Lys Ala Lys Thr Lys Glu Gly Lys Gly Pro Asn Ala Arg Arg 260 265 270

Lys Pro Lys Gly Ser Pro Arg Val Pro Asp Ala Lys Lys Pro Lys Pro 275 280 285

Lys Lys Val Ala Pro Leu Lys Ile Lys Leu Gly Gly Phe Gly Ser Lys 290 295 300

Arg Lys Arg Ser Ser Ser Glu Asp Asp Asp Leu Asp Val Glu Ser Asp 305 310 315

Phe Asp Asp Ala Ser Ile Asn Ser Tyr Ser Val Ser Asp Gly Ser Thr 325 330 335

Ser Arg Ser Ser Arg Ser Arg Lys Lys Leu Arg Thr Thr Lys Lys Lys 340 345 350

Lys Lys Gly Glu Glu Glu Val Thr Ala Val Asp Gly Tyr Glu Thr Asp 355 360 365

His Gln Asp Tyr Cys Glu Val Cys Gln Gln Gly Gly Glu Ile Ile Leu 370 375 380

Cys Asp Thr Cys Pro Arg Ala Tyr His Met Val Cys Leu Asp Pro Asp 385 390 395 400

Met Glu Lys Ala Pro Glu Gly Lys Trp Ser Cys Pro His Cys Glu Lys 405 410 415

Glu Gly Ile Gln Trp Glu Ala Lys Glu Asp Asn Ser Glu Gly Glu Glu 420 425 430

Ile Leu Glu Glu Val Gly Gly Asp Leu Glu Glu Glu Asp Asp His His 435 440 445

Met Glu Phe Cys Arg Val Cys Lys Asp Gly Glu Leu Leu Cys Cys 450 455 460

Asp Thr Cys Pro Ser Ser Tyr His Ile His Cys Leu Asn Pro Pro Leu 465 470 475 480

Pro Glu Ile Pro Asn Gly Glu Trp Leu Cys Pro Arg Cys Thr Cys Pro 485 490 495

Ala Leu Lys Gly Lys Val Gln Lys Ile Leu Ile Trp Lys Trp Gly Gln 500 505 510

Pro Pro Ser Pro Thr Pro Val Pro Arg Pro Pro Asp Ala Asp Pro Asn 515 520 525

Thr Pro Ser Pro Lys Pro Leu Glu Gly Arg Pro Glu Arg Gln Phe Phe 530 535 540

Val Lys Trp Gln Gly Met Ser Tyr Trp His Cys Ser Trp Val Ser Glu 545 550 555 560

- Leu Gln Leu Glu Leu His Cys Gln Val Met Phe Arg Asn Tyr Gln Arg 565 570 575
- Lys Asn Asp Met Asp Glu Pro Pro Ser Gly Asp Phe Gly Gly Asp Glu 580 585 590
- Glu Lys Ser Arg Lys Arg Lys Asn Lys Asp Pro Lys Phe Ala Glu Met 595 600 605
- Glu Glu Arg Phe Tyr Arg Tyr Gly Ile Lys Pro Glu Trp Met Met Ile 610 615 620
- His Arg Ile Leu Asn His Ser Val Asp Lys Lys Gly His Val His Tyr 625 630 635 640
- Leu Ile Lys Trp Arg Asp Leu Pro Tyr Asp Gln Ala Ser Trp Glu Ser 645 650 655
- Glu Asp Val Glu Ile Gln Asp Tyr Asp Leu Phe Lys Gln Ser Tyr Trp 660 665 670
- Asn His Arg Glu Leu Met Arg Gly Glu Glu Gly Arg Pro Gly Lys Lys 675 680 - 685
- Leu Lys Lys Val Lys Leu Arg Lys Leu Glu Arg Pro Pro Glu Thr Pro 690 695 700
- Thr Val Asp Pro Thr Val Lys Tyr Glu Arg Gln Pro Glu Tyr Leu Asp 705 710 715 720
- Ala Thr Gly Gly Thr Leu His Pro Tyr Gln Met Glu Gly Leu Asn Trp
 725 730 735
- Leu Arg Phe Ser Trp Ala Gln Gly Thr Asp Thr Ile Leu Ala Asp Glu
 740 745 750
- Met Gly Leu Gly Lys Thr Val Gln Thr Ala Val Phe Leu Tyr Ser Leu 755 760 765
- Tyr Lys Glu Gly His Ser Lys Gly Pro Phe Leu Val Ser Ala Pro Leu 770 780

Ser Thr Ile Ile Asn Trp Glu Arg Glu Phe Glu Met Trp Ala Pro Asp 785 790 795 800

- Met Tyr Val Val Thr Tyr Val Gly Asp Lys Asp Ser Arg Ala Ile Ile 805 810 815
- Arg Glu Asn Glu Phe Ser Phe Glu Asp Asn Ala Ile Arg Gly Gly Lys 820 825 830
- Lys Ala Ser Arg Met Lys Lys Glu Ala Ser Val Lys Phe His Val Leu 835 840 845
- Leu Thr Ser Tyr Glu Leu Ile Thr Ile Asp Met Ala Ile Leu Gly Ser 850 855
- Ile Asp Trp Ala Cys Leu Ile Val Asp Glu Ala His Arg Leu Lys Asn 865 870 875 880
- Asn Gln Ser Lys Phe Phe Arg Val Leu Asn Gly Tyr Ser Leu Gln His 885 890 895
- Lys Leu Leu Thr Gly Thr Pro Leu Gln Asn Asn Leu Glu Glu Leu 900 905 910
- Phe His Leu Leu Asn Phe Leu Thr Pro Glu Arg Phe His Asn Leu Glu 915 920 925
- Gly Phe Leu Glu Glu Phe Ala Asp Ile Ala Lys Glu Asp Gln Ile Lys 930 935 940
- Lys Leu His Asp Met Leu Gly Pro His Met Leu Arg Arg Leu Lys Ala 945 950 955 960
- Asp Val Phe Lys Asn Met Pro Ser Lys Thr Glu Leu Ile Val Arg Val 965 970 975
- Glu Leu Ser Pro Met Gln Lys Lys Tyr Tyr Lys Tyr Ile Leu Thr Arg 980 985 990
- Asn Phe Glu Ala Leu Asn Ala Arg Gly Gly Gly Asn Gln Val Ser Leu 995 1000 1005
- Leu Asn Val Val Met Asp Leu Lys Lys Cys Cys Asn His Pro Tyr 1010 1015 1020
- Leu Phe Pro Val Ala Ala Met Glu Ala Pro Lys Met Pro Asn Gly

1025 1030 1035

Met Tyr Asp Gly Ser Ala Leu Ile Arg Ala Ser Gly Lys Leu Leu 1040 1045 1050

Leu Leu Gln Lys Met Leu Lys Asn Leu Lys Glu Gly Gly His Arg 1055 1060 1065

Val Leu Ile Phe Ser Gln Met Thr Lys Met Leu Asp Leu Leu Glu 1070 1080

Asp Phe Leu Glu His Glu Gly Tyr Lys Tyr Glu Arg Ile Asp Gly 1085 1090 1095

Gly Ile Thr Gly Asn Met Arg Gln Glu Ala Ile Asp Arg Phe Asn 1100 1105 1110

Ala Pro Gly Ala Gln Gln Phe Cys Phe Leu Leu Ser Thr Arg Ala 1115 1120 · 1125

Gly Gly Leu Gly Ile Asn Leu Ala Thr Ala Asp Thr Val Ile Ile 1130 1135 1140

Tyr Asp Ser Asp Trp Asn Pro His Asn Asp Ile Gln Ala Phe Ser 1145 1150 1155

Arg Ala His Arg Ile Gly Gln Asn Lys Lys Val Met Ile Tyr Arg 1160 1165 1170

Phe Val Thr Arg Ala Ser Val Glu Glu Arg Ile Thr Gln Val Ala 1175 1180 1185

Lys Lys Lys Met Met Leu Thr His Leu Val Val Arg Pro Gly Leu 1190 1195 1200

Gly Ser Lys Thr Gly Ser Met Ser Lys Gln Glu Leu Asp Asp Ile 1205 1210 1215

Leu Lys Phe Gly Thr Glu Glu Leu Phe Lys Asp Glu Ala Thr Asp 1220 1225 1230

Gly Gly Gly Asp Asn Lys Glu Gly Glu Asp Ser Ser Val Ile His 1235 1240 1245

Tyr Asp Asp Lys Ala Ile Glu Arg Leu Leu Asp Arg Asn Gln Asp 1250 1255 1260

Glu Thr Glu Asp Thr Glu Leu Gln Gly Met Asn Glu Tyr Leu Ser Ser Phe Lys Val Ala Gln Tyr Val Val Arg Glu Glu Met Gly Glu Glu Glu Val Glu Arg Glu Ile Ile Lys Gln Glu Glu Ser Val Asp Pro Asp Tyr Trp Glu Lys Leu Leu Arg His His Tyr Glu Gln Gln Glu Asp Leu Ala Arg Asn Leu Gly Lys Gly Lys Arg Ile Arg Lys Gln Val Asn Tyr Asn Asp Gly Ser Gln Glu Asp Arg Asp Trp Gln Asp Asp Gln Ser Asp Asn Gln Ser Asp Tyr Ser Val Ala Ser Glu Glu Gly Asp Glu Asp Phe Asp Glu Arg Ser Glu Ala Pro Arg Arg Pro Ser Arg Lys Gly Leu Arg Asn Asp Lys Asp Lys Pro Leu Pro Pro Leu Leu Ala Arg Val Gly Gly Asn Ile Glu Val Leu Gly Phe Asn Ala Arg Gln Arg Lys Ala Phe Leu Asn Ala Ile Met Arg Tyr Gly Met Pro Pro Gln Asp Ala Phe Thr Thr Gln Trp Leu Val Arg Asp Leu Arg Gly Lys Ser Glu Lys Glu Phe Lys Ala Tyr Val Ser Leu Phe Met Arg His Leu Cys Glu Pro Gly Ala Asp Gly Ala Glu Thr Phe Ala Asp Gly Val Pro Arg Glu Gly Leu Ser

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Arg Gln His Val Leu Thr Arg Ile Gly Val Met Ser Leu Ile Arg Lys Lys Val Gln Glu Phe Glu His Val Asn Gly Arg Trp Ser Met Pro Glu Leu Ala Glu Val Glu Glu Asn Lys Lys Met Ser Gln Pro Gly Ser Pro Ser Pro Lys Thr Pro Thr Pro Ser Thr Pro Gly Asp Thr Gln Pro Asn Thr Pro Ala Pro Val Pro Pro Ala Glu Asp Gly Ile Lys Ile Glu Glu Asn Ser Leu Lys Glu Glu Glu Ser Ile Glu Gly Glu Lys Glu Val Lys Ser Thr Ala Pro Glu Thr Ala Ile Glu Cys Thr Gln Ala Pro Ala Pro Ala Ser Glu Asp Glu Lys Val Val Val Glu Pro Pro Glu Gly Glu Glu Lys Val Glu Lys Ala Glu Val Lys Glu Arg Thr Glu Glu Pro Met Glu Thr Glu Pro Lys Gly Ala Ala Asp Val Glu Lys Val Glu Clu Lys Ser Ala Ile Asp Leu Thr Pro Ile Val Val Glu Asp Lys Glu Glu Lys Lys Glu Glu Glu Glu Lys Lys Glu Val Met Leu Gln Asn Gly Glu Thr Pro Lys Asp Leu 1675 . 1680 Asn Asp Glu Lys Gln Lys Lys Asn Ile Lys Gln Arg Phe Met Phe Asn Ile Ala Asp Gly Gly Phe Thr Glu Leu His Ser Leu Trp Gln

Asn Glu Glu Arg Ala Ala Thr Val Thr Lys Lys Thr Tyr Glu Ile 1715 1720 1725

- Trp His Arg Arg His Asp Tyr Trp Leu Leu Ala Gly Ile Ile Asn 1730 1740
- His Gly Tyr Ala Arg Trp Gln Asp Ile Gln Asn Asp Pro Arg Tyr 1745 1750 1755
- Ala Ile Leu Asn Glu Pro Phe Lys Gly Glu Met Asn Arg Gly Asn 1760 1765 1770
- Phe Leu Glu Ile Lys Asn Lys Phe Leu Ala Arg Arg Phe Lys Leu 1775 1780 1785
- Leu Glu Gln Ala Leu Val Ile Glu Glu Gln Leu Arg Arg Ala Ala 1790 1795 1800
- Tyr Leu Asn Met Ser Glu Asp Pro Ser His Pro Ser Met Ala Leu 1805 1810 1815
- Asn Thr Arg Phe Ala Glu Val Glu Cys Leu Ala Glu Ser His Gln 1820 1830
- His Leu Ser Lys Glu Ser Met Ala Gly Asn Lys Pro Ala Asn Ala 1835 1840 1845
- Val Leu His Lys Val Leu Lys Gln Leu Glu Glu Leu Leu Ser Asp 1850 1855 1860
- Met Lys Ala Asp Val Thr Arg Leu Pro Ala Thr Ile Ala Arg Ile 1865 1870 1875
- Pro Pro Val Ala Val Arg Leu Gln Met Ser Glu Arg Asn Ile Leu 1880 1885 1890
- Ser Arg Leu Ala Asn Arg Ala Pro Glu Pro Thr Pro Gln Gln Val 1895 1900 1905
- Ala Gln Gln Gln 1910
- <210> 2562
- <211> 345
- <212> PRT
- <213> Homo sapiens

<400> 2562

- Met Pro Gln Arg Pro Ala Ala Ser Asn Ile Pro Val Val Gly Ser Pro 1 5 10 15
- Asn Pro Pro Ser Thr His Phe Ala Ser Gln Asn Gln His Ser Tyr Ser 20 25 30
- Ser Pro Pro Trp Ala Gly Gln His Asn Arg Lys Gly Glu Lys Asn Gly 35 40 45
- Met Gly Leu Cys Arg Leu Ser Met Lys Val Trp Glu Thr Val Gln Arg 50 55 60
- Lys Gly Thr Thr Ser Cys Gln Glu Val Val Gly Glu Leu Val Ala Lys
 65 70 75 80
- Phe Arg Ala Ala Ser Asn His Ala Ser Pro Asn Glu Ser Ala Tyr Asp 85 90 95
- Val Lys Asn Ile Lys Arg Arg Thr Tyr Asp Ala Leu Asn Val Leu Met
- Ala Met Asn Ile Ile Ser Arg Glu Lys Lys Lys Ile Lys Trp Ile Gly
 115 120 125
- Leu Thr Thr Asn Ser Ala Gln Asn Cys Gln Asn Leu Arg Val Glu Arg 130 135 140
- Gln Lys Arg Leu Glu Arg Ile Lys Gln Lys Gln Ser Glu Leu Gln Gln 145 150 155 160
- Leu Ile Leu Gln Gln Ile Ala Phe Lys Asn Leu Val Leu Arg Asn Gln 165 170 175
- Tyr Val Glu Glu Gln Val Ser Gln Arg Pro Leu Pro Asn Ser Val Ile 180 185 190
- His Val Pro Phe Ile Ile Ile Ser Ser Lys Lys Thr Val Ile Asn 195 200 205
- Cys Ser Ile Ser Asp Asp Lys Ser Glu Tyr Leu Phe Lys Phe Asn Ser 210 215 220
- Ser Phe Glu Ile His Asp Asp Thr Glu Val Leu Met Trp Met Gly Met 225 230 235 240

Thr Phe Gly Leu Glu Ser Gly Ser Cys Ser Ala Glu Asp Leu Lys Met 245 250 255

Ala Arg Asn Leu Val Pro Lys Ala Leu Glu Pro Tyr Val Thr Glu Met 260 265 270

Ala Gln Gly Thr Phe Gly Gly Val Phe Thr Thr Ala Gly Ser Arg Ser 275 280 285

Asn Gly Thr Trp Leu Ser Ala Ser Asp Leu Thr Asn Ile Ala Ile Gly 290 295 300

Met Leu Ala Thr Ser Ser Gly Gly Ser Gln Tyr Ser Gly Ser Arg Val 305 310 315 320

Glu Thr Pro Ala Val Glu Glu Glu Glu Glu Glu Asp Asn Asn Asp Asp 325 330 335

Asp Leu Ser Glu Asn Asp Glu Asp Asp 340 345

<210> 2563

<211> 553

<212> PRT

<213> Homo sapiens

<400> 2563

Met Ser Thr Glu Thr Glu Leu Gln Val Ala Val Lys Thr Ser Ala Lys 1 5 10 15

Lys Asp Ser Arg Lys Lys Gly Gln Asp Arg Ser Glu Ala Thr Leu Ile 20 25 30

Lys Arg Phe Lys Gly Glu Gly Val Arg Tyr Lys Ala Lys Leu Ile Gly 35 40 45

Ile Asp Glu Val Ser Ala Ala Arg Gly Asp Lys Leu Cys Gln Asp Ser 50 55 60

Met Met Lys Leu Lys Gly Val Val Ala Gly Ala Arg Ser Lys Gly Glu 65 70 75 80

His Lys Gln Lys Ile Phe Leu Thr Ile Ser Phe Gly Gly Ile Lys Ile 85 90 95

Phe Asp Glu Lys Thr Gly Ala Leu Gln His His His Ala Val His Glu

100 105 110

Ile Ser Tyr Ile Ala Lys Asp Ile Thr Asp His Arg Ala Phe Gly Tyr
115 120 125

Val Cys Gly Lys Glu Gly Asn His Arg Phe Val Ala Ile Lys Thr Ala 130 135 140

Gln Ala Ala Glu Pro Val Ile Leu Asp Leu Arg Asp Leu Phe Gln Leu 145 150 155 160

Ile Tyr Glu Leu Lys Gln Arg Glu Glu Leu Glu Lys Lys Ala Gln Lys 165 170 175

Asp Lys Gln Cys Glu Gln Ala Val Tyr Gln Thr Ile Leu Glu Glu Asp 180 185 190

Val Glu Asp Pro Val Tyr Gln Tyr Ile Val Phe Glu Ala Gly His Glu 195 200 205

Pro Ile Arg Asp Pro Glu Thr Glu Glu Asn Ile Tyr Gln Val Pro Thr 210 215 220

Ser Gln Lys Lys Glu Gly Val Tyr Asp Val Pro Lys Ser Gln Pro Ala 225 230 235 240

Val Thr Gln Leu Glu Leu Phe Gly Asp Met Ser Thr Pro Pro Asp Ile 245 250 255

Thr Ser Pro Pro Thr Pro Ala Thr Pro Gly Asp Ala Phe Ile Pro Ser 260 265 270

Ser Ser Gln Thr Leu Pro Ala Ser Ala Asp Val Phe Ser Ser Val Pro 275 280 285

Phe Gly Thr Ala Ala Val Pro Ser Gly Tyr Val Ala Met Gly Ala Val 290 295 300

Leu Pro Ser Phe Trp Gly Gln Gln Pro Leu Val Gln Gln Gln Met Val 305 310 315 320

Met Gly Ala Gln Pro Pro Val Ala Gln Val Met Pro Gly Ala Gln Pro 325 330 335

Ile Ala Trp Gly Gln Pro Gly Leu Phe Pro Ala Thr Gln Gln Pro Trp 340 345 350

Pro Thr Val Ala Gly Gln Phe Pro Pro Ala Ala Phe Met Pro Thr Gln 355 360

Thr Val Met Pro Leu Pro Ala Ala Met Phe Gln Gly Pro Leu Thr Pro 370 375

Leu Ala Thr Val Pro Gly Thr Ser Asp Ser Thr Arg Ser Ser Pro Gln 390 395

Thr Asp Lys Pro Arg Gln Lys Met Gly Lys Glu Thr Phe Lys Asp Phe 405

Gln Met Ala Gln Pro Pro Pro Val Pro Ser Arg Lys Pro Asp Gln Pro 425

Ser Leu Thr Cys Thr Ser Glu Ala Phe Ser Ser Tyr Phe Asn Lys Val

Gly Val Ala Gln Asp Thr Asp Asp Cys Asp Asp Phe Asp Ile Ser Gln

Leu Asn Leu Thr Pro Val Thr Ser Thr Thr Pro Ser Thr Asn Ser Pro 475 480

Pro Thr Pro Ala Pro Arg Gln Ser Ser Pro Ser Lys Ser Ser Ala Ser 490 495

His Ala Ser Asp Pro Thr Thr Asp Asp Ile Phe Glu Glu Gly Phe Glu 500 505 510

Ser Pro Ser Lys Ser Glu Glu Glu Glu Ala Pro Asp Gly Ser Gln Ala 520 525

Ser Ser Asn Ser Asp Pro Phe Gly Glu Pro Ser Gly Glu Pro Ser Gly 535 540

Asp Asn Ile Ser Pro Gln Ala Gly Ser 545 550

<210> 2564 <211> 1336 <212> PRT <213> Homo sapiens

<400> 2564

Met Glu Asn Leu Pro Ala Val Thr Thr Glu Glu Pro Thr Pro Met Gly

1 10 15

- Arg Gly Pro Val Gly Pro Ser Gly Gly Gly Ser Thr Arg Asp Gln Val
- Arg Thr Val Val Met Arg Pro Ser Val Ser Trp Glu Lys Ala Gly Pro 35 40 45
- Glu Glu Ala Lys Ala Pro Val Arg Gly Asp Glu Ala Pro Pro Ala Arg 50 55 60
- Val Ala Gly Pro Ala Ala Gly Thr Pro Pro Cys Gln Met Gly Val Tyr 65 70 75 80
- Pro Thr Asp Leu Thr Leu Gln Leu Leu Ala Val Arg Arg Lys Ser Arg 85 90 95
- Leu Arg Asp Pro Gly Leu Gln Gln Thr Leu Arg Gly Gln Leu Arg Leu 100 105 110
- Leu Glu Asn Asp Ser Arg Glu Met Ala Arg Val Leu Gly Glu Leu Ser 115 120 125
- Ala Arg Leu Leu Ser Ile His Ser Asp Gln Asp Arg Ile Val Val Thr
- Phe Lys Thr Phe Glu Glu Ile Trp Lys Phe Ser Thr Tyr His Ala Leu 145 150 155 160
- Gly Phe Thr His His Cys Leu Ala Asn Leu Leu Met Asp Gln Ala Phe 165 170 175
- Trp Leu Leu Pro Ser Glu Glu Glu Glu Thr Ala Ile Gln Val His 180 185 190
- Val Asp Glu Asn Ala Leu Arg Leu Thr His Glu Ser Leu Leu Ile Gln
 195 200 205
- Glu Gly Pro Phe Phe Val Leu Cys Pro Asp His His Val Arg Val Met 210 215 220
- Thr Gly Pro Arg Asp Ala Gly Asn Gly Pro Gln Ala Leu Arg Gln Ala 225 230 235 240
- Ser Gly Ala Pro Gln Gly Glu Ala Ala Pro Glu Thr Asp Ser Ser Pro

962

245

250

255

- Pro Ser Pro Ser Val Ser Ser Glu Glu Val Ala Val Ala Ala Ala Pro 260 265 270
- Glu Pro Leu Ile Pro Phe His Gln Trp Ala Leu Arg Ile Pro Gln Asp 275 280 285
- Pro Ile Asp Asp Ala Met Gly Gly Pro Val Met Pro Gly Asn Pro Leu 290 295 300
- Met Ala Val Gly Leu Ala Ser Ala Leu Ala Asp Phe Gln Gly Ser Gly 305 310 315 320
- Pro Glu Glu Met Thr Phe Arg Gly Gly Asp Leu Ile Glu Ile Leu Gly 325 330 335
- Ala Gln Val Pro Ser Leu Pro Trp Cys Val Gly Arg His Ala Ala Ser 340 345 350
- Gly Arg Val Gly Phe Val Arg Ser Ser Leu Ile Ser Met Gln Gly Pro 355 360 365
- Val Ser Glu Leu Glu Ser Ala Ile Phe Leu Asn Glu Glu Glu Lys Ser 370 375 380
- Phe Phe Ser Glu Gly Cys Phe Ser Glu Glu Asp Ala Arg Gln Leu Leu 385 390 395 400
- Arg Arg Met Ser Gly Thr Asp Val Cys Ser Val Tyr Ser Leu Asp Ser 405 410 415
- Val Glu Glu Ala Glu Thr Glu Gln Pro Gln Glu Lys Glu Ile Pro Pro 420 425 430
- Pro Cys Leu Ser Pro Glu Pro Gln Glu Thr Leu Gln Lys Val Lys Asn 435 440 445
- Val Leu Glu Gln Cys Lys Thr Cys Pro Gly Cys Pro Gln Glu Pro Ala 450 455 460
- Ser Trp Gly Leu Cys Ala Ala Ser Ser Asp Val Ser Leu Gln Asp Pro 465 470 475 480
- Glu Glu Pro Ser Phe Cys Leu Glu Ala Glu Asp Asp Trp Glu Asp Pro 485 490 495

Glu Ala Leu Ser Ser Leu Leu Leu Phe Leu Asn Ala Pro Gly Tyr Lys
500 505 510

- Ala Ser Phe Arg Gly Leu Tyr Asp Val Ala Leu Pro Trp Leu Ser Ser 515 520 525
- Val Phe Arg Ser Phe Ser Asp Glu Glu Glu Leu Thr Gly Arg Leu Ala 530 540
- Gln Ala Arg Gly Ala Ala Lys Lys Ala Gly Leu Leu Met Ala Leu Ala 545 550 555 560
- Arg Leu Cys Phe Leu Leu Gly Arg Leu Cys Ser Arg Arg Leu Lys Leu 565 570 575
- Ser Gln Ala Arg Val Tyr Phe Glu Glu Ala Leu Gly Ala Leu Glu Gly 580 585 590
- Ser Phe Gly Asp Leu Phe Leu Val Val Ala Val Tyr Ala Asn Leu Ala 595 600 605
- Ser Ile Tyr Arg Lys Gln Lys Asn Arg Glu Lys Cys Ala Gln Val Val 610 615 620
- Pro Lys Ala Met Ala Leu Leu Leu Gly Thr Pro Asp His Ile Cys Ser 625 630 635 640
- Thr Glu Ala Glu Gly Glu Leu Leu Gln Leu Ala Leu Arg Arg Ala Val 645 650 655
- Gly Gly Gln Ser Leu Gln Ala Glu Ala Arg Ala Cys Phe Leu Leu Ala 660 665 670
- Arg His His Val His Leu Lys Gln Pro Glu Glu Ala Leu Pro Phe Leu 675 680 685
- Glu Arg Leu Leu Leu His Arg Asp Ser Gly Ala Pro Glu Ala Ala 690 695 700
- Trp Leu Ser Asp Cys Tyr Leu Leu Leu Ala Asp Ile Tyr Ser Arg Lys 705 710 715 720
- Cys Leu Pro His Leu Val Leu Ser Cys Val Lys Val Ala Ser Leu Arg
 725 730 735

Thr Arg Gly Ser Leu Ala Gly Ser Leu Arg Ser Val Asn Leu Val Leu 740 745 750

- Gln Asn Ala Pro Gln Pro His Ser Leu Pro Ala Gln Thr Ser His Tyr 755 760 765
- Leu Arg Gln Ala Leu Ala Ser Leu Thr Pro Gly Thr Gly Gln Ala Leu 770 775 780
- Arg Gly Pro Leu Tyr Thr Ser Leu Ala Gln Leu Tyr Ser His His Gly 785 790 795 800
- Cys His Gly Pro Ala Ile Thr Phe Met Thr Gln Ala Val Glu Ala Ser 805 810 815
- Ala Ile Ala Gly Val Arg Ala Ile Val Asp His Leu Val Ala Leu Ala 820 825 830
- Trp Leu His Val Leu His Gly Gln Ser Pro Val Ala Leu Asp Ile Leu 835 840 845
- Gln Ser Val Arg Asp Ala Val Val Ala Ser Glu Asp Gln Glu Gly Val 850 855 860
- Ile Ala Asn Met Val Ala Val Ala Leu Lys Arg Thr Gly Arg Thr Arg 865 870 875 880
- Gln Ala Ala Glu Ser Tyr Tyr Arg Ala Leu Arg Val Ala Arg Asp Leu 885 890 895
- Gly Gln Gln Arg Asn Gln Ala Val Gly Leu Ala Asn Phe Gly Ala Leu 900 905 910
- Cys Leu His Ala Gly Ala Ser Arg Leu Ala Gln His Tyr Leu Leu Glu 915 920 925
- Ala Val Arg Leu Phe Ser Arg Leu Pro Leu Gly Glu Cys Gly Arg Asp 930 935 940
- Phe Thr His Val Leu Gln Leu Gly His Leu Cys Thr Arg Gln Gly 945 950 955 960
- Pro Ala Gln Gln Gly Lys Gly Tyr Tyr Glu Trp Ala Leu Leu Val Ala 965 970 975

Val Glu Met Gly His Val Glu Ser Gln Leu Arg Ala Val Gln Arg Leu 980 985 990

- Cys His Phe Tyr Ser Ala Val Met Pro Ser Glu Ala Gln Cys Val Ile 995 1000 1005
- Tyr His Glu Leu Gln Leu Ser Pro Ala Cys Lys Val Ala Asp Lys 1010 1015 1020
- Val Leu Glu Gly Gln Leu Leu Glu Thr Ile Ser Gln Leu Tyr Leu 1025 1030 1035
- Ser Leu Gly Thr Glu Arg Ala Tyr Lys Ser Ala Leu Asp Tyr Thr 1040 1045 1050
- Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu Gln Lys Lys Glu Lys 1055 1060 1065
- Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile Tyr Tyr Ile Leu 1070 1080
- Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val Ala Gln Asn 1085 1090 1095
- Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu Leu Phe 1100 1105 1110
- Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg Glu 1115 1120 1125
- Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val 1130 1135 1140
- Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu 1145 1150 1155
- Val Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu 1160 1165 1170
- Phe Ala His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg 1175 1180 1185
- Leu Asn Glu Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His 1190 1200
- Arg Leu Gly His Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala

1205 1210 1215

Leu Ser Leu Cys Asn Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu 1220 1225 1230

Tyr Tyr Val Lys Val Tyr Leu Val Leu Gly Asp Ile Ile Phe Tyr 1235 1240 1245

Asp Leu Lys Asp Pro Phe Asp Ala Ala Gly Tyr Tyr Gln Leu Ala 1250 1260

Leu Ala Ala Val Asp Leu Gly Asn Lys Lys Ala Gln Leu Lys 1265 1270 1275

Ile Tyr Thr Arg Leu Ala Thr Ile Tyr His Asn Phe Leu Leu Asp 1280 1285 1290

Arg Glu Lys Ser Leu Phe Phe Tyr Gln Lys Ala Arg Thr Phe Ala 1295 1300 1305

Thr Glu Leu Asn Val Arg Arg Val Asn Leu Pro Pro Leu Pro Leu 1310 1315 1320

Cys Gly Trp Ala Pro Trp Leu Ala Pro Ser His Pro Arg 1325 1330 1335

<210> 2565

<211> 93

<212> PRT

<213> Homo sapiens

<400> 2565

Met Leu Thr Glu Leu Glu Lys Ala Leu Asn Ser Ile Ile Asp Val Tyr 1 5 10 15

His Lys Tyr Ser Leu Ile Lys Gly Asn Phe His Ala Val Tyr Arg Asp

Asp Leu Lys Lys Leu Leu Glu Thr Glu Cys Pro Gln Tyr Ile Arg Lys 35 40 45

Lys Gly Ala Asp Val Trp Phe Lys Glu Leu Asp Ile Asn Thr Asp Gly 50 55 60

Ala Val Asn Phe Gln Glu Phe Leu Ile Leu Val Ile Lys Met Gly Val 65 70 75 80

Ala Ala His Lys Lys Ser His Glu Glu Ser His Lys Glu 85 90

<210> 2566

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 2566

Met Gly Val Gln Gly Leu Trp Lys Leu Leu Glu Cys Ser Gly Arg Gln
5 10 15

Val Ser Pro Glu Ala Leu Glu Gly Lys Ile Leu Ala Val Asp Ile Ser 20 25 30

Ile Trp Leu Asn Gln Ala Leu Lys Gly Val Arg Asp Arg His Gly Asn 35 40 45

Ser Ile Glu Asn Pro His Leu Leu Thr Leu Phe His Arg Leu Cys Lys 50 55 60

Leu Leu Phe Phe Arg Ile Arg Pro Ile Phe Val Phe Asp Gly Asp Ala 70 75 80

Pro Leu Leu Lys Lys Gln Thr Leu Val Lys Arg Arg Gln Arg Lys Asp 85 90 95

Leu Ala Ser Ser Asp Ser Arg Lys Thr Thr Glu Lys Leu Leu Lys Thr

Phe Leu Lys Arg Gln Ala Ile Lys Thr Ala Phe Arg Ser Lys Arg Asp 115 120 125

Glu Ala Leu Pro Ser Leu Thr Gln Val Arg Arg Glu Asn Asp Leu Tyr 130 135 140

Val Leu Pro Pro Leu Gln Glu Glu Glu Lys His Ser Ser Glu Glu Glu 145 150 155 160

Asp Glu Lys Glu Trp Gln Glu Arg Met Asn Gln Lys Gln Ala Leu Gln 165 170 175

Glu Glu Phe Phe His Asn Pro Gln Ala Ile Asp Ile Glu Ser Glu Asp 180 185 190

Phe Ser Ser Leu Pro Pro Glu Val Lys His Glu Ile Leu Thr Asp Met

195

200

205

Lys Glu Phe Thr Lys Arg Arg Thr Leu Phe Glu Ala Met Pro Glu 210 215 220

Glu Ser Asp Asp Phe Ser Gln Tyr Gln Leu Lys Gly Leu Leu Lys Lys 225 230 235 240

Asn Tyr Leu Asn Gln His Ile Glu His Val Gln Lys Glu Met Asn Gln 245 250 255

Gln His Ser Gly His Ile Arg Arg Gln Tyr Glu Asp Glu Gly Gly Phe 260 265 270

Leu Lys Glu Val Glu Ser Arg Arg Val Val Ser Glu Asp Thr Ser His 275 280 285

Tyr Ile Leu Ile Lys Gly Ile Gln Ala Lys Thr Val Ala Glu Val Asp 290 295 300

Ser Glu Ser Leu Pro Ser Ser Ser Lys Met His Gly Met Ser Phe Asp 305 310 315 320

Val Lys Ser Ser Pro Cys Glu Lys Leu Lys Thr Glu Lys Glu Pro Asp 325 330 335

Ala Thr Pro Pro Ser Pro Arg Thr Leu Leu Ala Met Gln Ala Ala Leu 340 345 350

Leu Gly Ser Ser Ser Glu Glu Glu Leu Glu Ser Glu Asn Arg Arg Gln 355 360 365

Ala Arg Gly Arg Asn Ala Pro Ala Ala Val Asp Glu Gly Ser Ile Ser 370 380

Pro Arg Thr Leu Ser Ala Ile Lys Arg Ala Leu Asp Asp Asp Glu Asp 385 390 395 400

Val Lys Val Cys Ala Gly Asp Asp Val Gln Thr Gly Gly Pro Gly Ala
405 410 415

Glu Glu Met Arg Ile Asn Ser Ser Thr Glu Asn Ser Asp Glu Gly Leu
420 425 430

Lys Val Arg Asp Gly Lys Gly Ile Pro Phe Thr Ala Thr Leu Ala Ser

Ser Ser Val Asn Ser Ala Glu Glu His Val Ala Ser Thr Asn Glu Gly 450 455 460

- Arg Glu Pro Thr Asp Ser Val Pro Lys Glu Gln Met Ser Leu Val His 465 470 475 480
- Val Gly Thr Glu Ala Phe Pro Ile Ser Asp Glu Ser Met Ile Lys Asp 485 490 495
- Arg Lys Asp Arg Leu Pro Leu Glu Ser Ala Val Val Arg His Ser Asp 500 505 510
- Ala Pro Gly Leu Pro Asn Gly Arg Glu Leu Thr Pro Ala Ser Pro Thr 515 520 525
- Cys Thr Asn Ser Val Ser Lys Asn Glu Thr His Ala Glu Val Leu Glu 530 535 540
- Gln Gln Asn Glu Leu Cys Pro Tyr Glu Ser Lys Phe Asp Ser Ser Leu 545 550 555 560
- Leu Ser Ser Asp Asp Glu Thr Lys Cys Lys Pro Asn Ser Ala Ser Glu 565 570 575
- Val Ile Gly Pro Val Ser Leu Gln Glu Thr Ser Ser Ile Val Ser Val 580 585 590
- Pro Ser Glu Ala Val Asp Asn Val Glu Asn Val Val Ser Phe Asn Ala 595 600 605
- Lys Glu His Glu Asn Phe Leu Glu Thr Ile Gln Glu Gln Gln Thr Thr 610 615 620
- Glu Ser Ala Gly Gln Asp Leu Ile Ser Ile Pro Lys Ala Val Glu Pro 625 630 635 640
- Met Glu Ile Asp Ser Glu Glu Ser Glu Ser Asp Gly Ser Phe Ile Glu 645 650 655
- Val Gln Ser Val Ile Ser Asp Glu Glu Leu Gln Ala Glu Phe Pro Glu 660 665 670
- Thr Ser Lys Pro Pro Ser Glu Gln Gly Glu Glu Glu Leu Val Gly Thr 675 680 685

Arg Glu Gly Glu Ala Pro Ala Glu Ser Glu Ser Leu Leu Arg Asp Asn 690 695 700

- Ser Glu Arg Asp Asp Val Asp Gly Glu Pro Gln Glu Ala Glu Lys Asp 705 710 715 720
- Ala Glu Asp Ser Leu His Glu Trp Gln Asp Ile Asn Leu Glu Glu Leu 725 730 735
- Glu Thr Leu Glu Ser Asn Leu Leu Ala Gln Gln Asn Ser Leu Lys Ala 740 745 750
- Gln Lys Gln Gln Gln Glu Arg Ile Ala Ala Thr Val Thr Gly Gln Met 755 760 765
- Phe Leu Glu Ser Gln Glu Leu Leu Arg Leu Phe Gly Ile Pro Tyr Ile 770 775 780
- Gln Ala Pro Met Glu Ala Glu Ala Gln Cys Ala Ile Leu Asp Leu Thr 785 790 795 800
- Asp Gln Thr Ser Gly Thr Ile Thr Asp Asp Ser Asp Ile Trp Leu Phe 805 810 815
- Gly Ala Arg His Val Tyr Arg Asn Phe Phe Asn Lys Asn Lys Phe Val 820 825 830
- Glu Tyr Tyr Gln Tyr Val Asp Phe His Asn Gln Leu Gly Leu Asp Arg 835 840 845
- Asn Lys Leu Ile Asn Leu Ala Tyr Leu Leu Gly Ser Asp Tyr Thr Glu 850 855 860
- Gly Ile Pro Thr Val Gly Cys Val Thr Ala Met Glu Ile Leu Asn Glu 865 870 875 880
- Phe Pro Gly His Gly Leu Glu Pro Leu Leu Lys Phe Ser Glu Trp Trp 885 890 895
- His Glu Ala Gln Lys Asn Pro Lys Ile Arg Pro Asn Pro His Asp Thr 900 905 910
- Lys Val Lys Lys Leu Arg Thr Leu Gln Leu Thr Pro Gly Phe Pro 915 920 925

Asn Pro Ala Val Ala Glu Ala Tyr Leu Lys Pro Val Val Asp Asp Ser 930 935 940

- Lys Gly Ser Phe Leu Trp Gly Lys Pro Asp Leu Asp Lys Ile Arg Glu 945 950 955 960
- Phe Cys Gln Arg Tyr Phe Gly Trp Asn Arg Thr Lys Thr Asp Glu Ser 965 970 975
- Leu Phe Pro Val Leu Lys Gln Leu Asp Ala Gln Gln Thr Gln Leu Arg
- Ile Asp Ser Phe Phe Arg Leu Ala Gln Gln Glu Lys Glu Asp Ala Lys 995 1000 1005
- Arg Ile Lys Ser Gln Arg Leu Asn Arg Ala Val Thr Cys Met Leu 1010 1015 1020
- Arg Lys Glu Lys Glu Ala Ala Ala Ser Glu Ile Glu Ala Val Ser 1025 1030 1035
- Val Ala Met Glu Lys Glu Phe Glu Leu Leu Asp Lys Ala Lys Arg
- Lys Thr Gln Lys Arg Gly Ile Thr Asn Thr Leu Glu Glu Ser Ser 1055 1060 1065
- Ser Leu Lys Arg Lys Arg Leu Ser Asp Ser Lys Arg Lys Asn Thr 1070 1080
- Cys Gly Gly Phe Leu Gly Glu Thr Cys Leu Ser Glu Ser Ser Asp 1085 1090 1095
- Gly Ser Ser Ser Glu His Ala Glu Ser Ser Ser Leu Met Asn Val 1100 1105 1110
- Gln Arg Arg Thr Ala Ala Lys Glu Pro Lys Thr Ser Ala Ser Asp 1115 1120 1125
- Ser Gln Asn Ser Val Lys Glu Ala Pro Val Lys Asn Gly Gly Ala 1130 1135 1140
- Thr Thr Ser Ser Ser Ser Asp Ser Asp Asp Asp Gly Gly Lys Glu 1145 1150 1155
- Lys Met Val Leu Val Thr Ala Arg Ser Val Phe Gly Lys Lys Arg

1160

1165

1170

Arg Lys Leu Arg Arg Ala Arg Gly Arg Lys Arg Lys Thr 1175 1180

<210> 2567

<211> 84 <212> PRT <213> Homo sapiens

<400> 2567

Met Pro Leu Ala Lys Asp Leu Leu His Pro Ser Pro Glu Glu Glu Lys

Arg Lys His Lys Lys Lys Arg Leu Val Gln Ser Pro Asn Ser Tyr Phe 25

Met Asp Val Lys Cys Pro Gly Cys Tyr Lys Ile Thr Thr Val Phe Ser 40

His Ala Gln Thr Val Val Leu Cys Val Gly Cys Ser Thr Val Leu Cys 55

Gln Pro Thr Gly Gly Lys Ala Arg Leu Thr Glu Gly Cys Ser Phe Arg 70 75 80

Arg Lys Gln His

<210> 2568

<211> 691

<212> PRT

<213> Homo sapiens

<400> 2568

Met Asp Gly Cys Lys Lys Glu Leu Pro Arg Leu Gln Glu Pro Glu Glu 5 10

Asp Glu Asp Cys Tyr Ile Leu Asn Val Gln Ser Ser Ser Asp Asp Thr 20 25

Ser Gly Ser Ser Val Ala Arg Arg Ala Pro Lys Arg Gln Ala Ser Cys 35 40

Ile Leu Asn Val Gln Ser Arg Ser Gly Asp Thr Ser Gly Ser Ser Val 50 55

Ala Arg Arg Ala Pro Lys Arg Gln Ala Ser Ser Val Val Val Ile Asp
65 70 75 80

- Ser Asp Ser Asp Glu Glu Cys His Thr His Glu Glu Lys Lys Ala Lys 85 90 95
- Leu Leu Glu Ile Asn Ser Asp Asp Glu Ser Pro Glu Cys Cys His Val
- Lys Pro Ala Ile Gln Glu Pro Pro Ile Val Ile Ser Asp Asp Asp Asn 115 120 125
- Asp Asp Asp Asn Gly Asn Asp Leu Glu Val Pro Asp Asp Asn Ser Asp 130 135 140
- Asp Ser Glu Ala Pro Asp Asp Asn Ser Asp Asp Ser Glu Ala Pro Asp 145 150 155 160
- Asp Asn Ser Asp Ser Glu Ala Pro Asp Asp Asn Ser Asp Asp Ser 165 170 175
- Glu Ala Pro Asp Asp Asn Ser Asp Asp Ser Asp Val Pro Asp Asp Asn 180 185 190
- Ser Asp Asp Ser Ser Asp Asp Asn Ser Asp Asp Ser Ser Asp Asp Asn 195 200 205
- Ser Asp Asp Ser Asp Val Pro Asp Asp Lys Ser Asp Asp Ser Asp Val 210 215 220
- Pro Asp Asp Ser Ser Asp Asp Ser Asp Val Pro Asp Asp Ser Ser Asp 225 230 230 235
- Asp Ser Glu Ala Pro Asp Asp Ser Ser Asp Asp Ser Glu Ala Pro Asp 245 250 255
- Asp Ser Ser Asp Asp Ser Glu Ala Pro Asp Asp Ser Ser Asp Asp Ser 260 265 270
- Glu Ala Pro Asp Asp Ser Ser Asp Asp Ser Glu Ala Ser Asp Asp Ser 275 280 285
- Ser Asp Asp Ser Glu Ala Ser Asp Asp Ser Ser Asp Asp Ser Glu Ala 290 295 300
- Pro Asp Asp Lys Ser Asp Ser Asp Val Pro Glu Asp Lys Ser Asp

305 310

315

320

Asp Ser Asp Val Pro Asp Asp Asn Ser Asp Asp Leu Glu Val Pro Val 325 330 335

Pro Ala Glu Asp Leu Cys Asn Glu Gly Gln Ile Ala Ser Asp Glu Glu 340 345 350

Glu Leu Val Glu Ala Ala Ala Val Ser Gln His Asp Ser Ser Asp 355 360 365

Asp Ala Gly Glu Gln Asp Leu Gly Glu Asn Leu Ser Lys Pro Pro Ser 370 380

Asp Pro Glu Ala Asn Pro Glu Val Ser Glu Arg Lys Leu Pro Thr Glu 385 390 395 400

Glu Glu Pro Ala Pro Val Val Glu Gln Ser Gly Lys Arg Lys Ser Lys
405 410 415

Thr Lys Thr Ile Val Glu Pro Pro Arg Lys Arg Gln Thr Lys 420 425 430

Asn Ile Val Glu Pro Pro Arg Lys Arg Gln Thr Lys Thr Lys Asn Ile 435 440 445

Val Glu Pro Leu Arg Lys Arg Lys Ala Lys Thr Lys Asn Val Ser Val 450 455 460

Thr Pro Gly His Lys Lys Arg Gly Pro Ser Lys Lys Lys Pro Gly Ala
465 470 475 480

Ala Lys Val Glu Lys Arg Lys Thr Arg Thr Pro Lys Cys Lys Val Pro 485 490 495

Gly Cys Phe Leu Gln Asp Leu Glu Lys Ser Lys Lys Tyr Ser Gly Lys 500 505 510

Asn Leu Lys Arg Asn Lys Asp Glu Leu Val Gln Arg Ile Tyr Asp Leu 515 520 525

Phe Asn Arg Ser Val Cys Asp Lys Leu Pro Glu Lys Leu Arg Ile 530 535 540

Gly Trp Asn Asn Lys Met Val Lys Thr Ala Gly Leu Cys Ser Thr Gly 545 550 555 560

Glu Met Trp Tyr Pro Lys Trp Arg Arg Phe Ala Lys Ile Gln Ile Gly 565 570 575

Leu Lys Val Cys Asp Ser Ala Asp Arg Ile Arg Asp Thr Leu Ile His 580 590

Glu Met Cys His Ala Ala Ser Trp Leu Ile Asp Gly Ile His Asp Ser 595 600 605

His Gly Asp Ala Trp Lys Tyr Tyr Ala Arg Lys Ser Asn Arg Ile His 610 615 620

Pro Glu Leu Pro Arg Val Thr Arg Cys His Asn Tyr Lys Ile Asn Tyr 625 630 635 640

Lys Val His Tyr Glu Cys Thr Gly Cys Lys Thr Arg Ile Gly Cys Tyr 645 650 655

Thr Lys Ser Leu Asp Thr Ser Arg Phe Ile Cys Ala Lys Cys Lys Gly 660 665 670

Ser Leu Val Met Val Pro Leu Thr Gln Lys Asp Gly Thr Arg Ile Val 675 680 685

Pro His Val 690

<210> 2569

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2569

Met Ser Asp Gln Glu Ala Lys Pro Ser Thr Glu Asp Leu Gly Asp Lys
1 5 10 15

Lys Glu Gly Glu Tyr Ile Lys Leu Lys Val Ile Gly Gln Asp Ser Ser 25 30

Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu Lys Lys Leu Lys 35 40 45

Glu Ser Tyr Cys Gln Arg Gln Gly Val Pro Met Asn Ser Leu Arg Phe 50 55 60

Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Lys Glu Leu 70 75 80

Gly Met Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Thr Gly
85 90 95

Gly His Ser Thr Val

<210> 2570

<211> 93

<212> PRT

<213> Homo sapiens

<400> 2570

Met Ser Gly Leu Arg Val Tyr Ser Thr Ser Val Thr Gly Ser Arg Glu

5 10 15

Ile Lys Ser Gln Gln Ser Glu Val Thr Arg Ile Leu Asp Gly Lys Arg

Ile Gln Tyr Gln Leu Val Asp Ile Ser Gln Asp Asn Ala Leu Arg Asp 35 40 45

Glu Met Arg Ala Leu Ala Gly Asn Pro Lys Ala Thr Pro Pro Gln Ile 50 55 60

Val Asn Gly Asp Gln Tyr Cys Gly Asp Tyr Glu Leu Phe Val Glu Ala 65 70 75 80

Val Glu Gln Asn Thr Leu Gln Glu Phe Leu Lys Leu Ala

<210> 2571

<211> 666

<212> PRT

<213> Homo sapiens

<400> 2571

Met Thr Pro Pro Pro Pro Gly Arg Ala Ala Pro Ser Ala Pro Arg Ala 1 5 10 15

Arg Val Pro Gly Pro Pro Ala Arg Leu Gly Leu Pro Leu Arg Leu Arg 20 25 30

Leu Leu Leu Leu Trp Ala Ala Ala Ala Ser Ala Gln Gly His Leu 35 40 45

Arg Ser Gly Pro Arg Ile Phe Ala Val Trp Lys Gly His Val Gly Gln 50 55 60

- Asp Arg Val Asp Phe Gly Gln Thr Glu Pro His Thr Val Leu Phe His 65 70 75 80
- Glu Pro Gly Ser Ser Ser Val Trp Val Gly Gly Arg Gly Lys Val Tyr 85 90 95
- Leu Phe Asp Phe Pro Glu Gly Lys Asn Ala Ser Val Arg Thr Val Asn 100 105 110
- Ile Gly Ser Thr Lys Gly Ser Cys Leu Asp Lys Arg Asp Cys Glu Asn 115 120 125
- Tyr Ile Thr Leu Leu Glu Arg Arg Ser Glu Gly Leu Leu Ala Cys Gly 130 135 140
- Thr Asn Ala Arg His Pro Ser Cys Trp Asn Leu Val Asn Gly Thr Val 145 150 155 160
- Val Pro Leu Gly Glu Met Arg Gly Tyr Ala Pro Phe Ser Pro Asp Glu . 165 170 175
- Asn Ser Leu Val Leu Phe Glu Gly Asp Glu Val Tyr Ser Thr Ile Arg
- Lys Gln Glu Tyr Asn Gly Lys Ile Pro Arg Phe Arg Arg Ile Arg Gly
 195 200 205
- Glu Ser Glu Leu Tyr Thr Ser Asp Thr Val Met Gln Asn Pro Gln Phe 210 225 220
- Ile Lys Ala Thr Ile Val His Gln Asp Gln Ala Tyr Asp Asp Lys Ile 235 230 235 240
- Tyr Tyr Phe Phe Arg Glu Asp Asn Pro Asp Lys Asn Pro Glu Ala Pro 245 250 255
- Leu Asn Val Ser Arg Val Ala Gln Leu Cys Arg Gly Asp Gln Gly Gly 260 265 270
- Glu Ser Ser Leu Ser Val Ser Lys Trp Asn Thr Phe Leu Lys Ala Met 275 280 285

Leu Val Cys Ser Asp Ala Ala Thr Asn Lys Asn Phe Asn Arg Leu Gln 290 295 300

- Asp Val Phe Leu Leu Pro Asp Pro Ser Gly Gln Trp Arg Asp Thr Arg 305 310 315 320
- Val Tyr Gly Val Phe Ser Asn Pro Trp Asn Tyr Ser Ala Val Cys Val 325 330 335
- Tyr Ser Leu Gly Asp Ile Asp Lys Val Phe Arg Thr Ser Ser Leu Lys 340 345 350
- Gly Tyr His Ser Ser Leu Pro Asn Pro Arg Pro Gly Lys Cys Leu Pro 355 360 365
- Asp Gln Gln Pro Ile Pro Thr Glu Thr Phe Gln Val Ala Asp Arg His 370 375 380
- Pro Glu Val Ala Gln Arg Val Glu Pro Met Gly Pro Leu Lys Thr Pro 385 390 395 400
- Leu Phe His Ser Lys Tyr His Tyr Gln Lys Val Ala Val His Arg Met
 405 410 415
- Gln Ala Ser His Gly Glu Thr Phe His Val Leu Tyr Leu Thr Thr Asp 420 425 430
- Arg Gly Thr Ile His Lys Val Val Glu Pro Gly Glu Gln Glu His Ser
- Phe Ala Phe Asn Ile Met Glu Ile Gln Pro Phe Arg Arg Ala Ala Ala 450 455 460
- Ile Gln Thr Met Ser Leu Asp Ala Glu Arg Arg Lys Leu Tyr Val Ser 465 470 475 480
- Ser Gln Trp Glu Val Ser Gln Val Pro Leu Asp Leu Cys Glu Val Tyr 485 490 495
- Gly Gly Gly Cys His Gly Cys Leu Met Ser Arg Asp Pro Tyr Cys Gly
 500 505 510
- Trp Asp Gln Gly Arg Cys Ile Ser Ile Tyr Ser Ser Glu Arg Ser Val 515 520 525
- Leu Gln Ser Ile Asn Pro Ala Glu Pro His Lys Glu Cys Pro Asn Pro

530 535 540

Lys Pro Asp Lys Ala Pro Leu Gln Lys Val Ser Leu Ala Pro Asn Ser 545 550 555 560

Arg Tyr Tyr Leu Ser Cys Pro Met Glu Ser Arg His Ala Thr Tyr Ser 565 570 575

Trp Arg His Lys Glu Asn Val Glu Gln Ser Cys Glu Pro Gly His Gln 580 585 590

Ser Pro Asn Cys Ile Leu Phe Ile Glu Asn Leu Thr Ala Gln Gln Tyr 595 600 605

Gly His Tyr Phe Cys Glu Ala Gln Glu Gly Ser Tyr Phe Arg Glu Ala 610 615 620

Gln His Trp Gln Leu Leu Pro Glu Asp Gly Ile Met Ala Glu His Leu 625 630 635 640

Leu Gly His Ala Cys Ala Leu Ala Ala Ser Leu Trp Leu Gly Val Leu 645 650 655

Pro Thr Leu Thr Leu Gly Leu Leu Val His
660 665

<210> 2572

<211> 162

<212> PRT

<213> Homo sapiens

<400> 2572

Met Arg Ser Ser Pro Gly Asn Met Glu Arg Ile Val Ile Cys Leu Met
1 5 10 15

Val Ile Phe Leu Gly Thr Leu Val His Lys Ser Ser Ser Gln Gly Gln 20 25 30

Asp Arg His Met Ile Arg Met Arg Gln Leu Ile Asp Ile Val Asp Gln 35 40 45

Leu Lys Asn Tyr Val Asn Asp Leu Val Pro Glu Phe Leu Pro Ala Pro 50 55 60

Glu Asp Val Glu Thr Asn Cys Glu Trp Ser Ala Phe Ser Cys Phe Gln 65 70 75 80

Lys Ala Gln Leu Lys Ser Ala Asn Thr Gly Asn Asn Glu Arg Ile Ile 85 90 95

Asn Val Ser Ile Lys Lys Leu Lys Arg Lys Pro Pro Ser Thr Asn Ala

Gly Arg Gln Lys His Arg Leu Thr Cys Pro Ser Cys Asp Ser Tyr

Glu Lys Lys Pro Pro Lys Glu Phe Leu Glu Arg Phe Lys Ser Leu Leu 130 135 140

Gln Lys Met Ile His Gln His Leu Ser Ser Arg Thr His Gly Ser Glu 145 150 155 160

Asp Ser

<210> 2573

<211> 1050

<212> PRT

<213> Homo sapiens

<400> 2573

Met Leu Cys Trp Gly Tyr Trp Ser Leu Gly Gln Pro Gly Ile Ser Thr 1 5 10 15

Asn Leu Gln Gly Ile Val Ala Glu Pro Gln Val Cys Gly Phe Ile Ser

Asp Arg Ser Val Lys Glu Val Ala Cys Gly Gly Asn His Ser Val Phe 35 40 45

Leu Leu Glu Asp Gly Glu Val Tyr Thr Cys Gly Leu Asn Thr Lys Gly 50 55 60

Gln Leu Gly His Glu Arg Glu Gly Asn Lys Pro Glu Gln Ile Gly Ala 65 70 75 80

Leu Ala Asp Gln His Ile Ile His Val Ala Cys Gly Glu Ser His Ser 85 90 95

Leu Ala Leu Ser Asp Arg Gly Gln Leu Phe Ser Trp Gly Ala Gly Ser 100 105 110

Asp Gly Gln Leu Gly Leu Met Thr Thr Glu Asp Ser Val Ala Val Pro

115 120 125

Arg Leu Ile Gln Lys Leu Asn Gln Gln Thr Ile Leu Gln Val Ser Cys
130
135
140

Gly Asn Trp His Cys Leu Ala Leu Ala Ala Asp Gly Gln Phe Phe Thr
145 150 155 160

Trp Gly Lys Asn Ser His Gly Gln Leu Gly Leu Gly Lys Glu Phe Pro 165 170 175

Ser Gln Ala Ser Pro Gln Arg Val Arg Ser Leu Glu Gly Ile Pro Leu 180 185 190

Ala Gln Val Ala Ala Gly Gly Ala His Ser Phe Ala Leu Ser Leu Ser 195 200 205

Gly Ala Val Phe Gly Trp Gly Met Asn Asn Ala Gly Gln Leu Gly Leu 210 215 220

Ser Asp Glu Lys Asp Arg Glu Ser Pro Cys His Val Lys Leu Leu Arg 225 230 235 240

Thr Gln Lys Val Val Tyr Ile Ser Cys Gly Glu Glu His Thr Ala Val 245 250 255

Leu Thr Lys Ser Gly Gly Val Phe Thr Phe Gly Ala Gly Ser Cys Gly 260 265 270

Gln Leu Gly His Asp Ser Met Asn Asp Glu Val Asn Pro Arg Arg Val 275 280 285

Leu Glu Leu Met Gly Ser Glu Val Thr Gln Ile Ala Cys Gly Arg Gln 290 295 300

His Thr Leu Ala Phe Val Pro Ser Ser Gly Leu Ile Tyr Ala Phe Gly 305 310 315 320

Cys Gly Ala Arg Gly Gln Leu Gly Thr Gly His Thr Cys Asn Val Lys 325 330 335

Cys Pro Ser Pro Val Lys Gly Tyr Trp Ala Ala His Ser Gly Gln Leu 340 345 350

Ser Ala Arg Ala Asp Arg Phe Lys Tyr His Ile Val Lys Gln Ile Phe 355 360 365

Ser Gly Gly Asp Gln Thr Phe Val Leu Cys Ser Lys Tyr Glu Asn Tyr 370 375 380

- Ser Pro Ala Val Asp Phe Arg Thr Met Asn Gln Ala His Tyr Thr Ser 385 390 395 400
- Leu Ile Asn Asp Glu Thr Ile Ala Val Trp Arg Gln Lys Leu Ser Glu
 405 410 415
- His Asn Asn Ala Asn Thr Ile Asn Gly Val Val Gln Ile Leu Ser Ser 420 425 430
- Ala Ala Cys Trp Asn Gly Ser Phe Leu Glu Lys Lys Ile Asp Glu His
- Phe Lys Thr Ser Pro Lys Ile Pro Gly Ile Asp Leu Asn Ser Thr Arg
 450 455 460
- Val Leu Phe Glu Lys Leu Met Asn Ser Gln His Ser Met Ile Leu Glu 465 470 475 480
- Gln Ile Leu Asn Ser Phe Glu Ser Cys Leu Ile Pro Gln Leu Ser Ser 485 490 495
- Ser Pro Pro Asp Val Glu Ala Met Arg Ile Tyr Leu Ile Leu Pro Glu 500 505 510
- Phe Pro Leu Leu Gln Asp Ser Lys Tyr Tyr Ile Thr Leu Thr Ile Pro 515 520 525
- Leu Ala Met Ala Ile Leu Arg Leu Asp Thr Asn Pro Ser Lys Val Leu 530 535 540
- Asp Asn Trp Trp Ser Gln Val Cys Pro Lys Tyr Phe Met Lys Leu Val 545 550 555 560
- Asn Leu Tyr Lys Gly Ala Val Leu Tyr Leu Leu Arg Gly Arg Lys Thr 565 570 575
- Phe Leu Ile Pro Val Leu Phe Asn Asn Tyr Ile Thr Ala Ala Leu Lys 580 585 590
- Leu Leu Glu Lys Leu Tyr Lys Val Asn Leu Lys Val Lys His Val Glu 595 600 605

- Tyr Asp Thr Phe Tyr Ile Pro Glu Ile Ser Asn Leu Val Asp Ile Gln 610 620
- Glu Asp Tyr Leu Met Trp Phe Leu His Gln Ala Gly Met Lys Ala Arg 625 630 635 640
- Pro Ser Ile Ile Gln Asp Thr Val Thr Leu Cys Ser Tyr Pro Phe Ile 645 650 655
- Phe Asp Ala Gln Ala Lys Thr Lys Met Leu Gln Thr Asp Ala Glu Leu 660 665 670
- Gln Met Gln Val Ala Val Asn Gly Ala Asn Leu Gln Asn Val Phe Met 675 680 685
- Leu Leu Thr Leu Glu Pro Leu Leu Ala Arg Ser Pro Phe Leu Val Leu 690 695 700
- His Val Arg Arg Asn Asn Leu Val Gly Asp Ala Leu Arg Glu Leu Ser 705 710 715 720
- Ile His Ser Asp Ile Asp Leu Lys Lys Pro Leu Lys Val Ile Phe Asp 725 730 735
- Gly Glu Glu Ala Val Asp Ala Gly Gly Val Thr Lys Glu Phe Phe Leu 740 745 750
- Leu Leu Lys Glu Leu Leu Asn Pro Ile Tyr Gly Met Phe Thr Tyr 755 760 765
- Tyr Gln Asp Ser Asn Leu Leu Trp Phe Ser Asp Thr Cys Phe Val Glu 770 775 780
- His Asn Trp Phe His Leu Ile Gly Ile Thr Cys Gly Leu Ala Ile Tyr 785 790 795 800
- Asn Ser Thr Val Val Asp Leu His Phe Pro Leu Ala Leu Tyr Lys Lys 805 810 815
- Leu Leu Asn Val Lys Pro Gly Leu Glu Asp Leu Lys Glu Leu Ser Pro 820 825 830
- Thr Glu Gly Arg Ser Leu Gln Glu Leu Leu Asp Tyr Pro Gly Glu Asp 835 840 845

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Val Glu Glu Thr Phe Cys Leu Asn Phe Thr Ile Cys Arg Glu Ser Tyr 855

- Gly Val Ile Glu Gln Lys Lys Leu Ile Pro Gly Gly Asp Asn Val Thr 870
- Val Cys Lys Asp Asn Arg Gln Glu Phe Val Asp Ala Tyr Val Asn Tyr 890 885
- Val Phe Gln Ile Ser Val His Glu Trp Tyr Thr Ala Phe Ser Ser Gly 905
- Phe Leu Lys Val Cys Gly Gly Lys Val Leu Glu Leu Phe Gln Pro Ser 920
- Glu Leu Arg Ala Met Met Val Gly Asn Ser Asn Tyr Asn Trp Glu Glu 935 930
- Leu Glu Glu Thr Ala Ile Tyr Lys Gly Asp Tyr Ser Ala Thr His Pro 950 955 945
- Thr Val Lys Leu Phe Trp Glu Thr Phe His Glu Phe Pro Leu Glu Lys 965 970
- Lys Lys Lys Phe Leu Leu Phe Leu Thr Gly Ser Asp Arg Ile Pro Ile 980 985
- Tyr Gly Met Ala Ser Leu Gln Ile Val Ile Gln Ser Thr Ala Ser Gly 1000 995
- Glu Glu Tyr Leu Pro Val Ala His Thr Cys Tyr Asn Leu Leu Asp 1010 1015
- Leu Pro Lys Tyr Ser Ser Lys Glu Ile Leu Ser Ala Arg Leu Thr 1035 1030 1025
- Gln Ala Leu Asp Asn Tyr Glu Gly Phe Ser Leu Ala 1045 1040

- <210> 2574 <211> 369 <212> PRT <213> Homo sapiens
- <400> 2574
- Met Arg Ala Cys Ile Ser Leu Val Leu Ala Val Leu Cys Gly Leu Ala 10

Trp Ala Glu Asp His Lys Glu Ser Glu Pro Leu Pro Gln Leu Glu Glu 20 25 30

- Glu Thr Glu Glu Ala Leu Ala Ser Asn Leu Tyr Ser Ala Pro Thr Ser 35 40 45
- Cys Gln Gly Arg Cys Tyr Glu Ala Phe Asp Lys His His Gln Cys His 50 55 60
- Cys Asn Ala Arg Cys Gln Glu Phe Gly Asn Cys Cys Lys Asp Phe Glu 65 70 75 80
- Ser Leu Cys Ser Asp His Glu Val Ser His Ser Ser Asp Ala Ile Thr 85 90 95
- Lys Glu Glu Ile Gln Ser Ile Ser Glu Lys Ile Tyr Arg Ala Asp Thr 100 105 110
- Asn Lys Ala Gln Lys Glu Asp Ile Val Leu Asn Ser Gln Asn Cys Ile 115 120 125
- Ser Pro Ser Glu Thr Arg Asn Gln Val Asp Arg Cys Pro Lys Pro Leu 130 135 140
- Phe Thr Tyr Val Asn Glu Lys Leu Phe Ser Lys Pro Thr Tyr Ala Ala 145 150 155 160
- Phe Ile Asn Leu Leu Asn Asn Tyr Gln Arg Ala Thr Gly His Gly Glu
 165 170 175
- His Phe Ser Ala Glu Glu Leu Ala Glu Gln Asp Ala Phe Leu Arg Glu 180 185 190
- Ile Met Lys Thr Ala Val Met Lys Glu Leu Tyr Ser Phe Leu His His 195 200 205
- Gln Asn Arg Tyr Gly Ser Glu Gln Glu Phe Val Asp Asp Leu Lys Asn 210 215 220
- Met Trp Phe Gly Leu Tyr Ser Arg Gly Asn Glu Glu Gly Asp Ser Ser 225 230 235 240
- Gly Phe Glu His Val Phe Ser Gly Glu Val Lys Lys Gly Lys Val Thr 245 250 255

Gly Phe His Asn Trp Ile Arg Phe Tyr Leu Glu Glu Lys Glu Gly Leu 260 265 270

Val Asp Tyr Tyr Ser His Ile Tyr Asp Gly Pro Trp Asp Ser Tyr Pro 275 280 285

Asp Val Leu Ala Met Gln Phe Asn Trp Asp Gly Tyr Tyr Lys Glu Val 290 295 300

Gly Ser Ala Phe Ile Gly Ser Ser Pro Glu Phe Glu Phe Ala Leu Tyr 305 310 315 320

Ser Leu Cys Phe Ile Ala Arg Pro Gly Lys Val Cys Gln Leu Ser Leu 325 330 335

Gly Gly Tyr Pro Leu Ala Val Arg Thr Tyr Thr Trp Asp Lys Ser Thr 340 345 350

Tyr Gly Asn Gly Lys Lys Tyr Ile Ala Thr Ala Tyr Ile Val Ser Ser 355 360 365

Thr

<210> 2575

<211> 90

<212> PRT

<213> Homo sapiens

<400> 2575

Met Asp Pro Leu Arg Ala Gln Gln Leu Ala Ala Glu Leu Glu Val Glu 1 5 10 15

Met Met Ala Asp Met Tyr Asn Arg Met Thr Ser Ala Cys His Arg Lys 20 25 30

Cys Val Pro Pro His Tyr Lys Glu Ala Glu Leu Ser Lys Gly Glu Ser 35 40 45

Val Cys Leu Asp Arg Cys Val Ser Lys Tyr Leu Asp Ile His Glu Arg
50 55 60

Met Gly Lys Lys Leu Thr Glu Leu Ser Met Gln Asp Glu Glu Leu Met 65 70 75 80

Lys Arg Val Gln Gln Ser Ser Gly Pro Ala

85 . 90

<210> 2576

<211> 426

<212> PRT

<213> Homo sapiens

<400> 2576

Met Ala Asn Asp Ser Gly Gly Pro Gly Gly Pro Ser Pro Ser Glu Arg

1 10 15

Asp Arg Gln Tyr Cys Glu Leu Cys Gly Lys Met Glu Asn Leu Leu Arg 20 25 30

Cys Ser Arg Cys Arg Ser Ser Phe Tyr Cys Cys Lys Glu His Gln Arg 35 40 45

Gln Asp Trp Lys Lys His Lys Leu Val Cys Gln Gly Ser Glu Gly Ala 50 55 60

Leu Gly His Gly Val Gly Pro His Gln His Ser Gly Pro Ala Pro Pro 65 70 75 80

Ala Ala Val Pro Pro Pro Arg Ala Gly Ala Arg Glu Pro Arg Lys Ala 85 90 95

Ala Ala Arg Arg Asp Asn Ala Ser Gly Asp Ala Ala Lys Gly Lys Val

Lys Ala Lys Pro Pro Ala Asp Pro Ala Ala Ala Ala Ser Pro Cys Arg 115 120 125

Ala Ala Gly Gly Gln Gly Ser Ala Val Ala Ala Glu Ala Glu Pro 130 135 140

Gly Lys Glu Glu Pro Pro Ala Arg Ser Ser Leu Phe Gln Glu Lys Ala 145 150 155 160

Asn Leu Tyr Pro Pro Ser Asn Thr Pro Gly Asp Ala Leu Ser Pro Gly 165 170 175

Gly Gly Leu Arg Pro Asn Gly Gln Thr Lys Pro Leu Pro Ala Leu Lys 180 185 190

Leu Ala Leu Glu Tyr Ile Val Pro Cys Met Asn Lys His Gly Ile Cys 195 200 205

Val	Val	Asp	Asp	Phe	Leu	Gly	Lys	Glu	Thr	Gly	Gln	Gln	Ile	Gly	Asp
	210					215					220				

- Glu Val Arg Ala Leu His Asp Thr Gly Lys Phe Thr Asp Gly Gln Leu 225 230 235 240
- Val Ser Gln Lys Ser Asp Ser Ser Lys Asp Ile Arg Gly Asp Lys Ile 245 250 255
- Thr Trp Ile Glu Gly Lys Glu Pro Gly Cys Glu Thr Ile Gly Leu Leu 260 265 270
- Met Ser Ser Met Asp Asp Leu Ile Arg His Cys Asn Gly Lys Leu Gly 275 280 285
- Ser Tyr Lys Ile Asn Gly Arg Thr Lys Ala Met Val Ala Cys Tyr Pro 290 295 300
- Gly Asn Gly Thr Gly Tyr Val Arg His Val Asp Asn Pro Asn Gly Asp 305 310 315 320
- Gly Arg Cys Val Thr Cys Ile Tyr Tyr Leu Asn Lys Asp Trp Asp Ala 325 330 335
- Lys Val Ser Gly Gly Ile Leu Arg Ile Phe Pro Glu Gly Lys Ala Gln 340 345 350
- Phe Ala Asp Ile Glu Pro Lys Phe Asp Arg Leu Leu Phe Phe Trp Ser 355 360 365
- Asp Arg Arg Asn Pro His Glu Val Gln Pro Ala Tyr Ala Thr Arg Tyr 370 375 380
- Ala Ile Thr Val Trp Tyr Phe Asp Ala Asp Glu Arg Ala Arg Ala Lys 385 390 395 400
- Val Lys Tyr Leu Thr Gly Glu Lys Gly Val Arg Val Glu Leu Asn Lys 405 410 415
- Pro Ser Asp Ser Val Gly Lys Asp Val Phe 420 425
- <210> 2577
- <211> 346
- <212> PRT
- <213> Homo sapiens

<400> 2577

Met Glu Ser Val Ser Cys Ser Ala Ala Ala Val Arg Thr Gly Asp Met 1 5 10 15

Glu Ser Gln Arg Asp Leu Ser Leu Val Pro Glu Arg Leu Gln Arg Arg
20 25 30

Glu Gln Glu Arg Gln Leu Glu Val Glu Arg Arg Lys Gln Lys Arg Gln 35 40 45

Asn Gln Glu Val Glu Lys Glu Asn Ser His Phe Phe Val Ala Thr Phe 50 55 60

Ala Arg Glu Arg Ala Ala Val Glu Glu Leu Leu Glu Arg Ala Glu Ser 65 70 75 80

Val Glu Arg Leu Glu Glu Ala Ala Ser Arg Leu Gln Gly Leu Gln Lys 85 90 95

Leu Ile Asn Asp Ser Val Phe Phe Leu Ala Ala Tyr Asp Leu Arg Gln
100 105 110

Gly Gln Glu Ala Leu Ala Arg Leu Gln Ala Ala Leu Ala Glu Arg Arg 115 120 125

Arg Gly Leu Gln Pro Lys Lys Arg Phe Ala Phe Lys Thr Arg Gly Lys 130 135 140

Asp Ala Ala Ser Ser Thr Lys Val Asp Ala Ala Pro Gly Ile Pro Pro 145 150 155 160

Ala Val Glu Ser Ile Gln Asp Ser Pro Leu Pro Lys Lys Ala Glu Gly
165 170 175

Asp Leu Gly Pro Ser Trp Val Cys Gly Phe Ser Asn Leu Glu Ser Gln 180 185 190

Val Leu Glu Lys Arg Ala Ser Glu Leu His Gln Arg Asp Val Leu Leu 195 200 205

Thr Glu Leu Ser Asn Cys Thr Val Arg Leu Tyr Gly Asn Pro Asn Thr 210 225

Leu Arg Leu Thr Lys Ala His Ser Cys Lys Leu Leu Cys Gly Pro Val 225 230 235 240

Ser Thr Ser Val Phe Leu Glu Asp Cys Ser Asp Cys Val Leu Ala Val 245 250 255

Ala Cys Gln Gln Leu Arg Ile His Ser Thr Lys Asp Thr Arg Ile Phe 260 265 270

Leu Gln Val Thr Ser Arg Ala Ile Val Glu Asp Cys Ser Gly Ile Gln 275 280 285

Phe Ala Pro Tyr Thr Trp Ser Tyr Pro Glu Ile Asp Lys Asp Phe Glu 290 295 300

Ser Ser Gly Leu Asp Arg Ser Lys Asn Asn Trp Asn Asp Val Asp Asp 305 310 315 320

Phe Asn Trp Leu Ala Arg Asp Met Ala Ser Pro Asn Trp Ser Ile Leu 325 330 335

Pro Glu Glu Glu Arg Asn Ile Gln Trp Asp 340 345

<210> 2578

<211> 247

<212> PRT

<213> Homo sapiens

<400> 2578

Met Glu Phe Pro Lys Met Leu Thr Arg Lys Ile Lys Leu Trp Asp Ile 1 5 10 15

Asn Ala His Ile Thr Cys Arg Leu Cys Ser Gly Tyr Leu Ile Asp Ala 20 25 30

Thr Thr Val Thr Glu Cys Leu His Thr Phe Cys Arg Ser Cys Leu Val 35 40 45

Lys Tyr Leu Glu Glu Asn Asn Thr Cys Pro Thr Cys Arg Ile Val Ile 50 55 60

His Gln Ser His Pro Leu Gln Tyr Ile Gly His Asp Arg Thr Met Gln 65 70 75 80

Asp Ile Val Tyr Lys Leu Val Pro Gly Leu Gln Glu Ala Glu Met Arg 85 90 95

Lys Gln Arg Glu Phe Tyr His Lys Leu Gly Met Glu Val Pro Gly Asp 100 105 110

Ile Lys Gly Glu Thr Cys Ser Ala Lys Gln His Leu Asp Ser His Arg 115 120 125

Asn Gly Glu Thr Lys Ala Asp Asp Ser Ser Asn Lys Glu Ala Ala Glu 130 135 140

Glu Lys Pro Glu Glu Asp Asn Asp Tyr His Arg Ser Asp Glu Gln Val 145 150 155 160

Ser Ile Cys Leu Glu Cys Asn Ser Ser Lys Leu Arg Gly Leu Lys Arg 165 170 175

Lys Trp Ile Arg Cys Ser Ala Gln Ala Thr Val Leu His Leu Lys Lys 180 185 190

Phe Ile Ala Lys Lys Leu Asn Leu Ser Ser Phe Asn Glu Leu Asp Ile 195 200 205

Leu Cys Asn Glu Glu Ile Leu Gly Lys Asp His Thr Leu Lys Phe Val 210 215 220

Val Val Thr Arg Trp Arg Phe Lys Lys Ala Pro Leu Leu His Tyr 225 230 235 240

Arg Pro Lys Met Asp Leu Leu 245

<210> 2579

<211> 360

<212> PRT

<213> Homo sapiens

<400> 2579

Met Ala Ser Ala Thr Ala Pro Ala Ala Ala Val Pro Thr Leu Ala Ser 1 5 10 15

Pro Leu Glu Gln Leu Arg His Leu Ala Glu Glu Leu Arg Leu Leu 20 25 30

Pro Arg Val Arg Val Gly Glu Ala Gln Glu Thr Thr Glu Glu Phe Asn 35 40 45

Arg Glu Met Phe Trp Arg Arg Leu Asn Glu Ala Ala Val Thr Val Ser 50 55 60

Arg 65	Glu	Ala	Thr	Thr	Leu 70	Thr	Ile	Val	Phe	Ser 75	Gln	Leu	Pro	Leu	Pro 80

- Ser Pro Gln Glu Thr Gln Lys Phe Cys Glu Gln Val His Ala Ala Ile 85 90 95
- Lys Ala Phe Ile Ala Val Tyr Tyr Leu Leu Pro Lys Asp Gln Gly Ile 100 105 110
- Thr Leu Arg Lys Leu Val Arg Gly Ala Thr Leu Asp Ile Val Asp Gly
 115 120 125
- Met Ala Gln Leu Met Glu Val Leu Ser Val Thr Pro Thr Gln Ser Pro 130 135 140
- Glu Asn Asn Asp Leu Ile Ser Tyr Asn Ser Val Trp Val Ala Cys Gln 145 150 155 160
- Gln Met Pro Gln Ile Pro Arg Asp Asn Lys Ala Ala Ala Leu Leu Met 165 170 175
- Leu Thr Lys Asn Val Asp Phe Val Lys Asp Ala His Glu Glu Met Glu
 180 185 190
- Gln Ala Val Glu Glu Cys Asp Pro Tyr Ser Gly Leu Leu Asn Asp Thr 195 200 205
- Glu Glu Asn Asn Ser Asp Asn His Asn His Glu Asp Asp Val Leu Gly 210 215 220
- Phe Pro Ser Asn Gln Asp Leu Tyr Trp Ser Glu Asp Asp Gln Glu Leu 225 230 235 240
- Ile Ile Pro Cys Leu Ala Leu Val Arg Ala Ser Lys Ala Cys Leu Lys 245 250 255
- Lys Ile Arg Met Leu Val Ala Glu Asn Gly Lys Lys Asp Gln Val Ala 260 265 270
- Gln Met Ala Asp Ile Val Asp Ile Ser Asp Glu Ile Ser Pro Ser Val 275 280 285
- Asp Asp Leu Ala Leu Ser Ile Tyr Pro Pro Met Cys His Leu Thr Val 290 295 300

Arg Ile Asn Ser Ala Lys Leu Val Ser Val Leu Lys Lys Ala Leu Glu 305 310 315 320

Ile Thr Lys Ala Ser His Val Thr Pro Gln Pro Glu Asp Ser Trp Ile 325 330 335

Pro Leu Leu Ile Asn Ala Ile Asp His Cys Met Asn Arg Ile Lys Glu 340 345 350

Leu Thr Gln Ser Glu Leu Glu Leu 355 360

<210> 2580

<211> 412

<212> PRT

<213> Homo sapiens

<400> 2580

Met Ala Glu Asn Leu Lys Gly Cys Ser Val Cys Cys Lys Ser Ser Trp 1 5 10 15

Asn Gln Leu Gln Asp Leu Cys Arg Leu Ala Lys Leu Ser Cys Pro Ala 20 25 30

Leu Gly Ile Ser Lys Arg Asn Leu Tyr Asp Phe Glu Val Glu Tyr Leu 35 40 45

Cys Asp Tyr Lys Lys Ile Arg Glu Gln Glu Tyr Tyr Leu Val Lys Trp
50 60

Arg Gly Tyr Pro Asp Ser Glu Ser Thr Trp Glu Pro Arg Gln Asn Leu 65 70 75 80

Lys Cys Val Arg Ile Leu Lys Gln Phe His Lys Asp Leu Glu Arg Glu 85 90 95

Leu Leu Arg Arg His His Arg Ser Lys Thr Pro Arg His Leu Asp Pro 100 105 110

Ser Leu Ala Asn Tyr Leu Val Gln Lys Ala Lys Gln Arg Arg Ala Leu 115 120 125

Arg Arg Trp Glu Gln Glu Leu Asn Ala Lys Arg Ser His Leu Gly Arg

Ile Thr Val Glu Asn Glu Val Asp Leu Asp Gly Pro Pro Arg Ala Phe

145 150 155 160

Val Tyr Ile Asn Glu Tyr Arg Val Gly Glu Gly Ile Thr Leu Asn Gln
165 170 175

Val Ala Val Gly Cys Glu Cys Gln Asp Cys Leu Trp Ala Pro Thr Gly
180 185 190

Gly Cys Cys Pro Gly Ala Ser Leu His Lys Phe Ala Tyr Asn Asp Gln
195 200 205

Gly Gln Val Arg Leu Arg Ala Gly Leu Pro Ile Tyr Glu Cys Asn Ser 210 215 220

Arg Cys Arg Cys Gly Tyr Asp Cys Pro Asn Arg Val Val Gln Lys Gly 225 230 235 240

Ile Arg Tyr Asp Leu Cys Ile Phe Arg Thr Asp Asp Gly Arg Gly Trp 245 250 255

Gly Val Arg Thr Leu Glu Lys Ile Arg Lys Asn Ser Phe Val Met Glu 260 265 270

Tyr Val Gly Glu Ile Ile Thr Ser Glu Glu Ala Glu Arg Arg Gly Gln 275 280 285

Ile Tyr Asp Arg Gln Gly Ala Thr Tyr Leu Phe Asp Leu Asp Tyr Val 290 295 300

Glu Asp Val Tyr Thr Val Asp Ala Ala Tyr Tyr Gly Asn Ile Ser His 305 310 315 320

Phe Val Asn His Ser Cys Asp Pro Asn Leu Gln Val Tyr Asn Val Phe 325 330 335

Ile Asp Asn Leu Asp Glu Arg Leu Pro Arg Ile Ala Phe Phe Ala Thr 340 345 350

Arg Thr Ile Arg Ala Gly Glu Glu Leu Thr Phe Asp Tyr Asn Met Gln 355 360 365

Val Asp Pro Val Asp Met Glu Ser Thr Arg Met Asp Ser Asn Phe Gly 370 380

Leu Ala Gly Leu Pro Gly Ser Pro Lys Lys Arg Val Arg Ile Glu Cys 385 390 395 400

Lys Cys Gly Thr Glu Ser Cys Arg Lys Tyr Leu Phe 405 410

<210> 2581

<211> 110

<212> PRT

<213> Homo sapiens

<400> 2581

Met Val Tyr Glu Arg Ala Gly Glu Ala Val Pro Pro Arg Gly Leu Arg
1 5 10 15

Glu Lys Phe Pro Arg Ala Leu Phe Gly Trp Ala Gly Glu Arg Pro Ser 20 25 30

Ala Leu Cys Ala Ser Asn Pro Pro Gln Leu Ser Cys Ser Gly Arg Gly 35 40 45

Ala Arg Tyr Phe Arg Leu Gly Glu Val Leu Gly Thr Asp Val Gly Ser 50 55 60

Ser Val Gly Asp Phe Ser Gly Phe Trp Pro Phe Gln Thr Leu Val Ile
65 70 75 80

Val Phe Ser Val Gln Ser Ser Phe Gly Val Trp Gly Phe Pro Ser Ser 85 90 95

Cys Ala Arg His Arg Glu Ala Trp Pro Glu Gly Pro Val Ser 100 105 110

<210> 2582

<211> 471

<212> PRT

<213> Homo sapiens

<400> 2582

Met Pro Asn Ser Glu Pro Ala Ser Leu Leu Glu Leu Phe Asn Ser Ile 1 5 10 15

Ala Thr Gln Gly Glu Leu Val Arg Ser Leu Lys Ala Gly Asn Ala Ser 20 25 30

Lys Asp Glu Ile Asp Ser Ala Val Lys Met Leu Val Ser Leu Lys Met 35 40 45

Ser Tyr Lys Ala Ala Ala Gly Glu Asp Tyr Lys Ala Asp Cys Pro Pro

50 55 60

Gly Asn Pro Ala Pro Thr Ser Asn His Gly Pro Asp Ala Thr Glu Ala 65 70 75 80

Glu Glu Asp Phe Val Asp Pro Trp Thr Val Gln Thr Ser Ser Ala Lys
85 90 95

Gly Ile Asp Tyr Asp Lys Leu Ile Val Arg Phe Gly Ser Ser Lys Ile 100 105 110

Asp Lys Glu Leu Ile Asn Arg Ile Glu Arg Ala Thr Gly Gln Arg Pro 115 120 125

His His Phe Leu Arg Arg Gly Ile Phe Phe Ser His Arg Asp Met Asn 130 135 140

Gln Val Leu Asp Ala Tyr Glu Asn Lys Lys Pro Phe Tyr Leu Tyr Thr 145 150 155 160

Gly Arg Gly Pro Ser Ser Glu Ala Met His Val Gly His Leu Ile Pro 165 170 175

Phe Ile Phe Thr Lys Trp Leu Gln Asp Val Phe Asn Val Pro Leu Val 180 185 190

Ile Gln Met Thr Asp Asp Glu Lys Tyr Leu Trp Lys Asp Leu Thr Leu 195 200 205

Asp Gln Ala Tyr Gly Asp Ala Val Glu Asn Ala Lys Asp Ile Ile Ala 210 215 220

Cys Gly Phe Asp Ile Asn Lys Thr Phe Ile Phe Ser Asp Leu Asp Tyr 225 230 235 240

Met Gly Met Ser Ser Gly Phe Tyr Lys Asn Val Val Lys Ile Gln Lys 245 250 255

His Val Thr Phe Asn Gln Val Lys Gly Ile Phe Gly Phe Thr Asp Ser 260 265 270

Asp Cys Ile Gly Lys Ile Ser Phe Pro Ala Ile Gln Ala Ala Pro Ser 275 280 285

Phe Ser Asn Ser Phe Pro Gln Ile Phe Arg Asp Arg Thr Asp Ile Gln 290 295 300

Cys Leu Ile Pro Cys Ala Ile Asp Gln Asp Pro Tyr Phe Arg Met Thr 305 310 315 Arg Asp Val Ala Pro Arg Ile Gly Tyr Pro Lys Pro Ala Leu Leu His 330 Ser Thr Phe Phe Pro Ala Leu Gln Gly Ala Gln Thr Lys Met Ser Ala Ser Asp Pro Asn Ser Ser Ile Phe Leu Thr Asp Thr Ala Lys Gln Ile 360 Lys Thr Lys Val Asn Lys His Ala Phe Ser Gly Gly Arg Asp Thr Ile 375 Glu Glu His Arg Gln Phe Gly Gly Asn Cys Asp Val Asp Val Ser Phe 385 390 Met Tyr Leu Thr Phe Phe Leu Glu Asp Asp Asp Lys Leu Glu Gln Ile 405 410 Arg Lys Asp Tyr Thr Ser Gly Ala Met Leu Thr Gly Glu Leu Lys Lys 420 425 Ala Leu Ile Glu Val Leu Gln Pro Leu Ile Ala Glu His Gln Ala Arg . 435 440

Arg Lys Glu Val Thr Asp Glu Ile Val Lys Glu Phe Met Thr Pro Arg 450 455 460

Lys Leu Ser Phe Asp Phe Gln 465 470

<210> 2583 <211> 392 <212> PRT

<213> Homo sapiens

<400> 2583

Met Gly Ser Leu Ser Thr Ala Asn Val Glu Phe Cys Leu Asp Val Phe 1 5 10 15

Lys Glu Leu Asn Ser Asn Asn Ile Gly Asp Asn Ile Phe Phe Ser Ser 20 25 30

Leu Ser Leu Leu Tyr Ala Leu Ser Met Val Leu Leu Gly Ala Arg Gly 35 40 45

- Glu Thr Ala Glu Gln Leu Glu Lys Val Leu His Phe Ser His Thr Val 50 55 60
- Asp Ser Leu Lys Pro Gly Phe Lys Asp Ser Pro Lys Cys Ser Gln Ala 65 70 75 80
- Gly Arg Ile His Ser Glu Phe Gly Val Glu Phe Ser Gln Ile Asn Gln 85 90 95
- Pro Asp Ser Asn Cys Thr Leu Ser Ile Ala Asn Arg Leu Tyr Gly Thr
 100 105 110
- Lys Thr Met Ala Phe His Gln Gln Tyr Leu Ser Cys Ser Glu Lys Trp 115 120 125
- Tyr Gln Ala Arg Leu Gln Thr Val Asp Phe Glu Gln Ser Thr Glu Glu 130 135 140
- Thr Arg Lys Met Ile Asn Ala Trp Val Glu Asn Lys Thr Asn Gly Lys 145 150 155 160
- Val Ala Asn Leu Phe Gly Lys Ser Thr Ile Asp Pro Ser Ser Val Met 165 170 175
- Val Leu Val Asn Thr Ile Tyr Phe Lys Gly Gln Arg Gln Asn Lys Phe 180 185 190
- Gln Val Arg Glu Thr Val Lys Ser Pro Phe Gln Leu Ser Glu Gly Lys 195 200 205
- Asn Val Thr Val Glu Met Met Tyr Gln Ile Gly Thr Phe Lys Leu Ala 210 215 220
- Phe Val Lys Glu Pro Gln Met Gln Val Leu Glu Leu Pro Tyr Val Asn 225 230 235 240
- Asn Lys Leu Ser Met Ile Ile Leu Leu Pro Val Gly Ile Ala Asn Leu 245 250 255
- Lys Gln Ile Glu Lys Gln Leu Asn Ser Gly Thr Phe His Glu Trp Thr 260 265 270
- Ser Ser Ser Asn Met Met Glu Arg Glu Val Glu Val His Leu Pro Arg

275 280 285

Phe Lys Leu Glu Ile Lys Tyr Glu Leu Asn Ser Leu Leu Lys Pro Leu 290 295 300

Gly Val Thr Asp Leu Phe Asn Gln Val Lys Ala Asp Leu Ser Gly Met 305 310 315 320

Ser Pro Thr Lys Gly Leu Tyr Leu Ser Lys Ala Ile His Lys Ser Tyr 325 330 335

Leu Asp Val Ser Glu Glu Gly Thr Glu Ala Ala Ala Thr Gly Asp 340 345 350

Ser Ile Ala Val Lys Ser Leu Pro Met Arg Ala Gln Phe Lys Ala Asn 355 360 365

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Gly Gln Gln Pro Pro Arg Ser Ala Ser Ala Gly Pro Ala Gly Glu Ser 35 40 45

Lys Pro Lys Ser Asp Gly Lys Asn Ser Ser Gly Ser Lys Arg Tyr Asn 50 55 60

Arg Lys Arg Glu Leu Ser Tyr Pro Lys Asn Glu Ser Phe Asn Asn Gln 65 70 75 80

Ser Arg Arg Ser Ser Ser Gln Lys Ser Lys Thr Phe Asn Lys Met Pro 85 90 95